

*An Historical  
Review of the*  
SAN FRANCISCO  
EXCHANGE

From the collection of the

o P<sup>z n m</sup>re<sup>a</sup>inger<sup>a</sup>  
v L<sup>t p</sup>ibrary

San Francisco, California  
2008





51

RECEIVED BY THE  
LIBRARY OF THE  
CALIFORNIA STATE ARCHIVES

1911

AN HISTORICAL REVIEW  
*of the*  
SAN FRANCISCO EXCHANGE







GEORGE S. LADD  
1878-1889

HENRY T. SCOTT  
1906-1913

H. D. PILLSBURY  
1925-

JOHN I. SABIN  
1889-1905

G. E. MCFARLAND  
1913-1925

*Presidents of the Telephone Company*

*An Historical Review*  
*of the*  
San Francisco  
Exchange



*By*

R. S. MASTERS    R. C. SMITH  
W. E. WINTER

THE PACIFIC  
TELEPHONE AND TELEGRAPH COMPANY

*MCMXXVII*



Copyright, 1927

By

The Pacific Telephone and Telegraph Company  
San Francisco

## P R E F A C E

**A**N attempt has been made to present in this review a brief and more or less entertaining history of San Francisco, giving particular attention to those phases of the subject not ordinarily emphasized in more ambitious volumes, rather than to facts and events which have become, through constant repetition, matters of common knowledge.

Obviously, in a work of this nature it has been impossible to dwell at any considerable length upon even the most important happenings, and many that might well have been included have been omitted, mainly for the reason that they have no great bearing on the development of San Francisco, or, rather, the economic history of the city. Appreciating the danger of too many dates and statistics making a work hard reading, they have been left out of the review so far as has been practicable, and the personal element has been suppressed throughout.

In the organization of this review the problem did not consist so much in unearthing suitable material as in selecting from a mass of detail such parts as would most interest the reader searching for a new angle on San Francisco's history. Conditions existing at various stages in the city's growth are briefly described in the following chapters, which trace her transition from a sleepy Spanish settlement to the San Francisco of 1927.

R. S. M.

R. C. S.

W. E. W.



## TABLE OF CONTENTS

<i>Chapter</i>	<i>Page</i>
I THE DISCOVERY OF SAN FRANCISCO BAY	7
II THE FOUNDING OF SAN FRANCISCO	11
III THE DISCOVERY OF GOLD	13
IV THE COMING OF THE AMERICANS	21
V EARLY METHODS OF COMMUNICATION	25
VI THE SILVER ERA	31
VII SAN FRANCISCO IN THE SIXTIES	35
VIII THE COMING OF THE TELEPHONE	39
IX DEVELOPMENT OF THE SEVENTIES	49
X THE BEGINNING OF LONG DISTANCE SERVICE	55
XI THE NINETIES	59
XII THE DEVELOPMENT OF THE TELEPHONE SYSTEM	65
XIII THE LAST OF THE CENTURY	71
XIV THE EARTHQUAKE AND FIRE	75
XV REHABILITATION	83
XVI GENERAL DEVELOPMENT	89
XVII THE EXPOSITION	95
XVIII THE WAR	101
XIX TELEPHONE DEVELOPMENT AFTER THE WAR	103
XX CONCLUSION	111



Early Spanish Map of San Francisco Bay, 1775

---

## CHAPTER I

### The Discovery of San Francisco Bay

EDGED about by hills and bordered on one side by the surging tides of a great bay and on the other by shifting sand dunes, an expanse of level and verdant land lay, swept by odorous winds from low mud flats and all embracing fog from the sea, unseen by white men until the eighteenth century was about to whirl into the past. The destinies of this small bit of a virgin country lay ahead, to be guided and achieved by the labor, blood, passions, virtue and enterprise of members of many races, before the city of San Francisco was to join the ranks of her older, although as it has proved, no more famous sisters.

Robed padres, richly dressed cavaliers, armored soldiers and burdened Indians all played a part in the discovery of San Francisco Bay, and the romance of the incident lies partly in the fact that it was found quite by accident by a party of hunters in search of food for the expedition proper. This happened in 1769,<sup>1</sup> and whetted the interest of Spain in the possibilities of the new country.

The story behind the discovery of San Francisco Bay is unusual and romantic. It seems when "V. P. Fr. Junipero Serra consulted with the Illmo. Senor Visitador General (Galvez) of Mexico about the first three missions which he had charged him to establish in this Nueva California, that noticing the names of Guardian Saints were assigned to them, he said, 'Senor, why is there not a mission for Nuestro Padre San Francisco?' To which the Visitador General responded, '*If San Francisco wishes a mission, let his Port be discovered and one will be founded.*' "<sup>2</sup>

A very deep seated reason urged Spain to send her colonization forces up the coast of Nueva California, and her determination in this instance resulted in speeding up the founding of a mission in the name of St. Francis. Russia had long been engaged in cultivat-

<sup>1</sup>Moses, Bernard: *The Establishment of Municipal Government in San Francisco—The Johns Hopkins University Studies* (1889), p. 5.

<sup>2</sup>Palou, Rev. Padre Fr. Francisco: *Relacion Historica de la vida y apostolicas Tareas del Venerable Padre Fray Junipero Serra y de los Misiones que fundo en la California* (1787).

ing trade on the upper coast of the continent. England was at that time and had for many years been exceedingly active in plundering Spanish ships on the Pacific and in touching here and there on land which Spain claimed for her own.<sup>1</sup>

Early explorers had overlooked San Francisco Bay in their quest for new ports, due to the narrow cleft of the Golden Gate which from the sea was effectually hidden by a back-drop of Coast Range hills, making it invisible to mariners at any great distance. Attempts to find a suitable harbor had been made doubly difficult through a lack of sea-worthy ships, suitable crews and ever recurring attacks of scurvy which rapidly depleted ranks of natives and Spaniards alike. Future attempts were, therefore, made principally by land, with ships as mere means of supply after the objective was reached.<sup>1</sup>

Acting under this new theory Portola made his way with a small expedition to establish a mission at Monterey Bay. The objective was reached unknown to the Spaniards, for they failed to recognize it from reports transmitted by predecessors. As a result they plodded on for another forty leagues and arrived at a range of hills which gave them their first view of the West's greatest harbor. The reactions of Portola to his discovery were not pleasant, for he had failed to accomplish the task set for him. Nevertheless, like a true explorer, he made out a report and retraced his steps to Mexico.<sup>1</sup>

A shrewd person like Bucareli, the Viceroy of Mexico, could not have been expected to overlook the possibilities of a port of the type described in Portola's summary. After careful thought and consideration, he gave directions that a presidio and mission be established on the new bay. Little time was lost in preparing for this new adventure in colonization and in 1776 a party under the command of Don Jose Moraga, consisting of one sergeant, sixteen soldiers, seven married settlers with their families, two hundred head of cattle for the presidio, and necessary equipage set out.<sup>2</sup>

After a hard journey made memorable by much suffering and the loss of many lives, the Spaniards arrived at what was to be the site of San Francisco. It was in September and the hills were tawny with sun-burned grass; the weather was excellent and all hands, including those of the ship *San Carlos*, set about erecting mud and thatch buildings as the nucleus of a truly Spanish presidio.<sup>3</sup> Moraga

<sup>1</sup>Geographical Society of the Pacific: *Transactions and Proceedings*, Series 2, Vol. IV, 114: (1905-1907) pp. 8-9, 24, 35-60.

<sup>2</sup>Moses, Bernard: *The Establishment of Municipal Government in San Francisco*, Johns Hopkins University Studies (1889) p. 6.

<sup>3</sup>Eldredge, Z. S.: *Beginnings of San Francisco* (1912) p. 151.

during the same month took formal possession of the land in the name of the Spanish King, Charles III. This ceremony consisted of the following movements: "The commander drew his sword and cut trees, branches, bushes and grass. He moved stones, and walked over land and shore, with no obstruction to his movements. The commander then carried and erected a cross, piled stones around its base and proclaimed the name of port and bay. The bark of a tree was stripped and a cross carved upon the trunk, ornamented with the inscription I.N.R.I. (*Jesus Nazareus Rex Judaeorum*), and at the foot 'Carolus III'.<sup>1</sup> The mission was dedicated with much pomp at a later day, the noise of swivel guns and musketry frightening the Indians away for some time."<sup>2</sup>

<sup>1</sup>In the Geographical Society's account the King of Spain is designated as "Carolus III"—the Latin for "Charles."

<sup>2</sup>Geographical Society of the Pacific: *Transactions and Proceedings* (1905-1907) p. 127.



*Sir Francis Drake and the California Indians*



Early survey of San Francisco Bay

---

## CHAPTER II

### The Founding of San Francisco

WITH the foundation of San Francisco actually started, work of placing the settlement on a self-sustaining basis began. A consideration of Spain's colonization policy is enlightening in gauging the success of the venture. The Roman rather than the British system was used. The presidio was intended to provide military protection for the mission and the pueblo in its jurisdiction. The permanence of the presidio was taken for granted, for it was thought at no time would the country be able to dispense with armed forces. The mission on the other hand was intended to be temporary. When its purpose was accomplished it would become a parish church, and its settlement would be converted into a pueblo. This peculiarity in the status of the mission rendered it impossible for the order of padres to acquire full ownership in the lands they used, for the latter, occupied by them only on permission, were the property of the nation and were at all times subject to grant under colonization laws. The towns or pueblos were looked upon as permanent institutions.

The earliest towns in California were organized under the laws of Philip II, and were of two kinds:

1. Those started by individuals under government contract.
2. Those made by a number of persons acting under mutual agreement among themselves.

San Francisco, of course, was of the latter type.<sup>1</sup>

Four leagues square of land were given to each town fulfilling the terms of its contract with the home government. The limits of the territory were to be five leagues from the boundaries of any village, town or city of Spaniards, previously founded.

This possession of municipal land was not dependent on a formal written grant. "The situation of San Francisco made it impossible for the town to obtain four square leagues in a square. Its

<sup>1</sup>Moses, Bernard: *The Establishment of Municipal Government in San Francisco—Johns Hopkins University Studies* (1889) pp. 8, 9, 10, 11.

territory was bounded on three sides by water, and the fourth line was drawn for quantity, east and west, straight across the peninsula, from the ocean to the bay. The four square leagues (exclusive of the military reserve, church buildings, etc.) north of this line constitute the municipal lands of the pueblo of San Francisco."<sup>1</sup>

The main body of emigrants accompanying the first expedition were chiefly from Sinaloa and Sonora in Mexico, augmented by native and Mexican sailors from the *San Carlos*. When their first intensive efforts of building had subsided, the settlement retained much the same form for many years—just a cluster of mud houses, a little church whitewashed with lime from sea shells, and an immaculate presidio. At the time of Mexican independence from Spain the main commerce of inhabitants was with Yankee skippers from around the Horn. The principal products of San Francisco were hides and tallow.<sup>2</sup> The wealth of the mission and presidio consisted of about seventy-nine thousand cattle; one thousand horses; two thousand breeding mares; hogs, sheep, merchandise and many thousands of dollars in cash. This was in 1835, when Richard Henry Dana, author of *Two Years Before the Mast*, visited San Francisco.<sup>2</sup>

At that time but one ship, a Russian vessel from Sitka, lay in the harbor, engaged in trading and obtaining supplies.<sup>3</sup> Mud flats, rocks, tawny hills, hazy in the distance, and occasional fogs characterized the place, composing in the aggregate a virile and not unattractive picture — A picture, at least, offering Spanish artists ample opportunity to exercise their handiwork.

By 1846 there had been practically no growth and but twenty or thirty houses, built of shakes, filled with rubble and plastered with mud, lined the beach. Charles Point, the future site of Broadway wharf, a pile of rocks jutting out into the bay, was the only location at which passengers and freight from ships might be landed. Bay waters reached up in the valley now traversed by Market Street, cutting across the present line of First Street and penetrating as far as the border of Montgomery Street. This was the final aspect of the Spanish settlement, long lost in peace and quiet; for it lay then on the verge of transition into a wild and lawless frontier town. This change was rapid and a number of factors contributed directly to its accomplishment.

<sup>1</sup>Payne and Dewey vs Treadwell; *Cal. Rep.* 16, 230; also: *The Establishment of Municipal Government in San Francisco*, p. 11.

<sup>2</sup>Eldredge, Z. S.: *Beginnings of San Francisco* (1912) Vol. I, pp. 211, 212, 213.

<sup>3</sup>*Ibid.*: Vol. II, p. 499.

---

## CHAPTER III

### The Discovery of Gold

THE second republic to be established on the North American continent became a reality in 1821, when Spain recognized the independence of Mexico. Members of the Mexican Congress naturally retained many Spanish views concerning the missions and their purpose in the general colonization scheme, and were much more severe in dealing with the padres than their predecessors had been. It was inevitable, therefore, that a law should be passed calling for the dispersion of the religious order. A maelstrom ensued and the peaceful mission life was gone forever.

Some of the padres, in anticipation of secularization, wasted their property—literally threw it to the winds—allowing their neat buildings to become dilapidated, their flocks to be butchered, their herds to become scattered, and their Indian charges to migrate to other points. The mission was stripped of its wealth. The padres left and their lands fell into the hands of Spanish and Mexican aristocrats.<sup>1</sup> A new chapter in California history had been ushered in, a chapter just as colorful and probably even more inspiring than the first.

After the secularization of the San Francisco mission, it became known as the *Pueblo de Dolores* but this meant nothing. It had no separate municipal organization for it was embraced within the municipality of San Francisco,<sup>2</sup> as was the case in similar instances affecting nearly twenty missions to the southward. The name *Mission Dolores* has been retained to this day, however, merely as a matter of custom and identification.

When the land barons came into rollicking sway, one of California's most pleasing characteristics, a boundless hospitality, became firmly rooted in the hearts of the inhabitants and has since been carried on undiminished by their descendants. A traveler might stay as long as he wanted at the rancho of a Don, welcome,

<sup>1</sup>Eldredge, Z. S.: *Beginnings of San Francisco* (1912), pp. 177, 178, 179, 180, 181.

<sup>2</sup>Moses, Bernard: *The Establishment of Municipal Government in San Francisco—The Johns Hopkins University Studies* (1889), pp. 11, 12.

647



*The original plan of the town of San Francisco*  
Note that early names of some streets have been changed

feasted, and entertained up to the minute of his departure. Horsemen rode wide ranges; harvests were gathered; cattle were driven in and slaughtered for hides and tallow, and as a result of the general fertility of the herds and the cheapness of peon labor, great land owners soon came to be rich in the world's goods. San Francisco benefited directly, for while still a village she was the main port of the region.

Marring the tranquility of the Dons was the presence of a number of Americans and Russians. The menace of the latter faded away when Captain John A. Sutter purchased their trading post and every possession, but as a result, Spanish and Mexican apprehensions toward Americans redoubled. Yankees, as they were called, made their livelihood for the most part by trading, trapping and general adventuring. They were a hardy lot, not easily subdued. As a last resort in restricting the immigration of English speaking people, a large number were arrested and deported to Mexico.<sup>1</sup> The remedy was no antidote for the condition and American interests in San Francisco and California was increased a hundred-fold when Fremont and Farnham carried back to the East glowing accounts of the new country. A great tide of humanity was about to sweep down over peaceful hills and through pleasant valleys to start in earnest the building up of a great state and city.

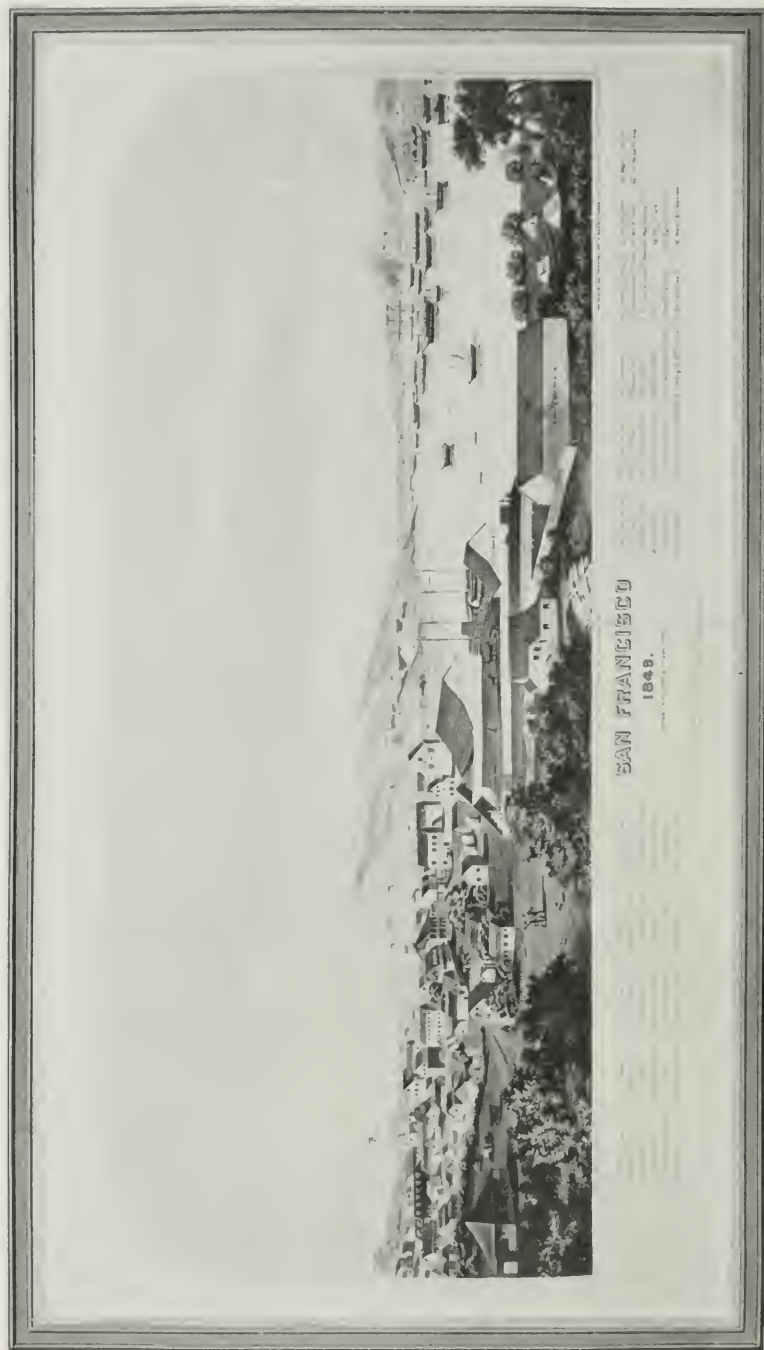
The history of California was for many years thereafter written in gold by men whose minds were steeped in its lure. A pathetic truth lies in the fact that while Spaniards had found precious metals in South America, Mexico and other parts of the world, they had no success in this new country. A double disappointment for them came in 1848 when California was taken from Mexico, for it was precisely at this time that James W. Marshall discovered gold in sands of the American River, a tributary of the Sacramento.<sup>2</sup> Despite every effort of Marshall to keep the good news secret, it leaked out and the small rumors that became current took on a gaseous form and seemed to be carried by every wind to the four corners of the earth.

The first gold seekers to arrive came from Chili and Peru, and a great number of Kanakas surged in from Hawaii.<sup>3</sup> San Francisco from the beginning became the port of debarkation and the principal source of supply for men preparing to rush to the back country.

<sup>1</sup>Eldredge, Z. S.: *Beginnings of San Francisco* (1912), Vol. I, pp. 253, 257.

<sup>2</sup>*Ibid.*: (1912), Vol. II, p. 445.

<sup>3</sup>*Ibid.*: Vol. II, p. 453; also Taylor, Bayard: *Eldorado*, (1850) p. 55.



*San Francisco as it appeared when gold was discovered in California*

The town grew as no community had done before. When immigration from the eastern side of the continent set in, a tent city sprang up, continuing from day to day to take on great proportions. The influx resulted in congregating in the frontier town probably the most crude, raw, lawless and cosmopolitan population ever assembled on this green earth. There was a confusion of tongues shaming Babel; and the waterfront door-yard of the breathless and houseless town was heaped high with nondescript piles of baggage and freight from countless ships. There were energetic, excited Yankees; Californians in sombreros and serapes; Chilians, Sonorians, Kanakas, Chinese, and Malays, with their inevitable Creeses,<sup>1</sup>—an assemblage at once the salt and the scum of the earth.

With its unprecedented growth, San Francisco began to take on the aspect of a city. The Plaza, now called Portsmouth Square after Captain Montgomery's ship *Portsmouth*, was the center of city government and life. A one-story building housing the Customs House was located on the slope of the hill on which the square was laid out, and the Parker House, an ordinary frame residence about sixty feet wide used for hotel purposes, stood on the lower side. The tent city ranged along dry land bordering inevitable mud flats from Telegraph Hill to *Cerro del Rincon*, or Rincon Hill.

Physical changes wrought in San Francisco from the gold days to the present time are unique and amazing. A consideration of them is rather interesting. The shore line of course was affected most. Coves and depressions were filled in, hills lowered and streams turned from their courses. Water disappeared and dry land rose where inlets of the bay had formerly been.

The topography of San Francisco's site did not at the outset offer much promise for business districts, although there were many splendid locations for residences to be found on the many hills. The only level space lay between Telegraph and Rincon hills, north and south, and from the shore line to California Street Hill, east and west. Another reasonably level stretch extended from Telegraph Hill to Russian Hill, out to North Beach; but it was remote in the early days and consequently of little use. Later, Market Street was opened and graded and limited level stretches were made in other localities. The work went slowly for early settlers had to labor without the aid of modern machinery.<sup>2</sup> This was the site of San Fran-

<sup>1</sup>Taylor, Bayard: *Eldorado* (1850) p. 55.

<sup>2</sup>Marye, George T. Jr.: *From '49 to '83 in California and Nevada* (1923), pp. 31-38.



*Cosmopolitan San Francisco, 1850*

cisco. A strange sight it would have been to us today, with Telegraph Hill completely wooded, Yerba Buena Cove extending up Montgomery Street and the whole landscape made picturesque by wastes of chaparral and shifting sands.<sup>1</sup>

The making of a business area, and development along the waterfront were the chief concerns of the pioneer city builders. The waterfront presented an unusual problem. Under colonization laws of Spain and Mexico no lots could be sold beyond the shore line, so prospective builders hesitated about constructing wharves, for they feared having their property revert to the government. The restricted area extended 200 varas, or 185 yards, from the water's edge. Figueroa's order in this connection was revoked by General Kearny in 1847, and the sale of lots on the east side of town was authorized. The sale of beach and water lots by Kearny's decree of conveyance to the corporate body of San Francisco, took place in 1848. The notice of the sale, published by Edward Bryant, was accompanied by the following prophetic statement:<sup>2</sup>

"The site of San Francisco is known to all navigators and mercantile men, acquainted with the subject, to be the most commanding position on the entire coast of the Pacific Ocean, and the town itself is destined, no doubt, to become the emporium of the western side of the continent."<sup>2</sup>

The favorable conclusion of beach and waterlot controversies saw the beginning of San Francisco's waterfront growth. It is said that the site of the pioneer city was chosen for one reason, because ships found it most convenient to anchor in that part of the bay just off its shore, as the cove offered sheltered waters where passengers and cargoes might be disembarked. Officials of the Pacific Mail Company offered a rather plausible theory when they held that passengers, after a trip of several months over turbulent seas, with the desire for gold in their hearts, were much too impatient to permit the company to carry them to more favored points farther up or on the other side of the bay.

It was not long before extensive warehouses were built on the waterfront, and by 1850 there were twelve wharves in use, all but one of which were owned by individuals. That one was controlled by an association. Streets and houses were built out over the bay,

<sup>1</sup>Marye, George T. Jr.: *From '49 to '83 in California and Nevada* (1923), pp. 31-33.

<sup>2</sup>*Ibid.*: pp. 39-40.

and tides ebbed and flowed under them until the sea wall was built in the late eighties. Lots were piled to permit building, for the mud flats naturally offered no substantial foundation for even the lightest of structures.<sup>1</sup>

The winter of 1849 was San Francisco's most memorable rainy season for more reasons than one. Constant traffic of thousands of men, horses, cattle and wagons over the hitherto virgin and unused soil, together with constant downpours of torrential rains, created bogs, mires, morasses and lakes in which animals were drowned and men ruined their possessions and merchandise. Business was tied up. Every conceivable sort of solid object was thrown into the hungry, sticky mixture to furnish some kind of foundation, however rickety, over which men might move. The need for plank streets and sidewalks was made painfully but forcefully evident and the next year witnessed a great change in this respect.<sup>2</sup> A reason for this abominable state of affairs may be seen in the corrupt condition of the city government, for during 1849 there were at one time three separate and distinct city councils, each pulling away from and not with the others.<sup>2</sup> The character of the population caused serious trouble and detracted necessarily from interest which might have been shown in more constructive and commercially desirable pursuits.

These governmental activities formed a problem by themselves.

<sup>1</sup>Marye, George T. Jr.: *From '49 to '83 in California and Nevada* (1923), pp. 41, 45.

<sup>2</sup>Eldredge, Z. S.: *Beginnings of S.F.* (1912) Vol. II, pp. 596-598, 623.



From collection of Charles B. Turrill

*Map of San Francisco and Vicinity Showing Ranchos*

---

## CHAPTER IV

### The Coming of the Americans

AMERICAN influence had gained foothold in San Francisco early in its history, back in the times when the settlement was called Yerba Buena after fragrant running vines abounding in the lee of sandhills filling the present site of Market Street, especially at the point now occupied by the Mechanics' Institute Library. In the beginning no habitation was to be seen and the only vestiges of civilization were two narrow trails, one leading to the presidio and the other to the mission. It was to this landscape that William A. Richardson transplanted a bit of eastern America. In 1835 this hardy pioneer gained permission to lay out a street, which followed the general lines of the present Grant Avenue, called the *Calle de Fundacion*. Richardson's house, built of boards and sail-cloth, was situated at what would be Number 811 on the modern street of exclusive shops. When Dana came in 1835 this was the only habitation visible from the bay. The following year, however, Jacob P. Leese built a complete house, which he opened with a celebration, held quite appropriately on July Fourth.<sup>1</sup>

It has been proved that a few Americans in a foreign community often exercise more than proportional influence, and this was the case. The peaceful, bucolic atmosphere experienced a violent storm in 1849 when seven hundred shiploads of passengers and freight<sup>2</sup> were landed and dumped in the door-yard of the new settlement. The presence of this motley and magically produced population, as has been said, brought problems of government, the like of which have never been faced by any town or city.

From the time of Spain's initial occupancy, the establishment of some sort of municipal government occupied the attention of authorities. Events associated with this problem extend over three-quarters of a century, from the founding of the first Spanish pueblo

<sup>1</sup>Turrill, Charles B.; *California Notes* (1876) Vol. 1, p. 25; Murdock, C. A.: *A Backward Glance at Eighty* (1921), p. 101.

<sup>2</sup>*A Backward Glance at Eighty*, p. 102.

to the adoption of San Francisco's first city charter passed by the state legislature in 1851. The Spanish (1834) decided to separate military and civil power and to bestow the latter upon a local or pueblo organization, a change from formal military government which the commandante of the presidio had previously exercised, to a civil administration for the same district. The resultant self-ruling town was given all rights accruing to such a corporation under Mexican laws then in force. The town council entrusted with governmental affairs was called an *ayuntamiento*. The system lasted for just two years, at the end of which governmental powers passed into the hands of justices of the peace.<sup>1</sup>

When the United States took over the city, following a movement which had its inception in the persecution by Spaniards of Americans who had aided them in wresting northern California from Mexico in the bloodless revolution of 1836, the alcalde was the principal official with nearly absolute authority.<sup>2</sup> Captain Montgomery raised the American flag over San Francisco on July 7, 1846, two days after Fremont was declared governor of the Bear Flag Republic.<sup>3</sup> Thereafter Lieutenant Washington Bartlett, of the American naval forces entrusted with city government administered affairs under existing Mexican laws until the adoption of the first city charter under the constitution. The intervening period was one during which San Francisco was seeking some stable foundation for its government. It is with this episode that we are to be occupied for the present.

The chief concern of San Francisco's early inhabitants lay in quelling disturbances made by a numerous desperate and lawless element. A large number of Australian convicts found their way to the city and congregated habitually along the waterfront and in the vicinity of Broadway and Pacific streets, sallying forth incessantly to strike terror in the hearts of law-abiding people. Pedestrians were robbed and murdered, stores and residences plundered, but the police were either powerless or indisposed to effect a drastic remedy. In desperation, various strong-willed citizens banded together into what was known as a Vigilance Committee of 1851, originating a series of effective combinations of the same name operating at various times up until 1856 when a final drive was made by the most

<sup>1</sup>Moses, Bernard: *The Establishment of Municipal Government in San Francisco; The Johns Hopkins University Studies* (1889), pp. 18, 19, 20, 21, 22.

<sup>2</sup>Farnham, T. J.: *Life, Adventures and Travel in California* (1849), p. 60.

<sup>3</sup>Daniells, T. G.: (Editor): *Resources of California* (1909) p. 5.; Farnham, T. J.: *Life, Adventures and Travel in California* (1849), pp. 26-27.

famous of all these organizations. A number of criminals were hanged in full view of the populace as a deterrent measure and scores were banished. Within five or six years from the time of the first vigilance committee, of 1851, fairly good order had been attained.<sup>1</sup>

In closing a description of early government it might be well to consider various happenings during 1850. San Francisco was the ninth city in California to be incorporated, after the adoption of the constitution, which fixed much narrower boundaries than those to which the city was entitled. The southern limit was a line parallel to Clay Street, and two miles distant in a southerly direction from the center of Portsmouth Square. The western line was one and one-half miles from the same point and ran parallel to Kearny Street. The northern and eastern boundaries were the same as those of San Francisco County. The city was divided into eight wards, to be increased or diminished only by action of the legislature.<sup>2</sup>

San Francisco in 1850 was but three years old and had a population of twenty-five thousand. Despite adverse conditions, the city had improved in appearance in a comparatively short space of time. A clutter of low huts and tents, windswept and sand-blown, had given place to a large number of "brick houses and pretty stores; and the streets, formerly covered with mud and water, were floored with thick and dry planks." Civic affairs were nevertheless corrupt and involved. A change very apparently was needed. The *Daily Alta California*, a contemporary newspaper, estimated the population of the city to be twenty-five thousand, but its debts amounted to more than one million dollars, the interest on which reached thirty-six per cent a year.<sup>3</sup>

In 1851 a new charter was drawn up defining governmental functions. Boundaries were changed on the south and west. The southern boundary was still parallel to Clay Street, but was two and one-half miles instead of two miles from the center of Portsmouth Square, and the western line parallel to Kearny Street was placed at two miles, instead of one and one-half miles from the same point. The city was divided into eight wards but it was provided that they be rearranged in 1852 and during the second year thereafter "so

<sup>1</sup>Eldredge, Z. S.: *History of California* (1915), Vol. IV, pp. 598-599; Hittell, J. S.: *History of San Francisco, etc.*, (1878), pp. 172-178; 245-262; Hittell, T. H.: *History of California* (1897), Vol. II, pp. 725, 726.

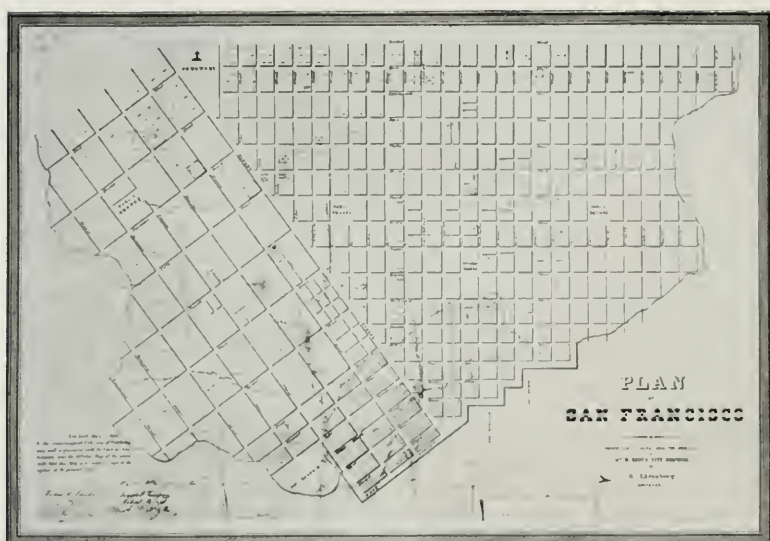
<sup>2</sup>*Ibid.*: (Eldredge), p. 623.

<sup>3</sup>Moses, Bernard: *The Establishment of Municipal Government in San Francisco; The Johns Hopkins University Studies* (1889), pp. 78, 79.

that each ward would contain approximately the same number of inhabitants."

This was the manner in which San Francisco started on its colorful way toward growth from a town of hectic inclinations to a city of permanence and power.<sup>1</sup>

<sup>1</sup>Moses, Bernard: *The Establishment of Municipal Government in San Francisco; The Johns Hopkins University Studies* (1889), pp. 78, 79.



From collection of C. Templeton Crocker

*San Francisco as it had expanded by 1850*

---

## CHAPTER V

### Early Methods of Communication

THE problem of devising some adequate means of communication attracted the attention of San Franciscans from the first. Throughout the first two decades of the city's history all mail was brought from the Atlantic Coast by clipper ships, the fastest vessels of their day. It was only natural, therefore, that a group of hard-headed business men who had come from New England and who understood shipping and commercial conditions, should devote their efforts to providing accommodations and safeguards for marine traffic. A Chamber of Commerce was established in 1850, during a meeting held by business men in a little clap-board schoolhouse in Portsmouth Square. The beginning was not portentous but subsequent events proved the worth of this body of public spirited citizens.

In 1850 trade ran high through the Golden Gate, but there were no regulations for handling this commerce; no wharves; no warehouses and, above all, no lighthouses at any point along the coast to guide ships.<sup>1</sup> Practically all goods were consigned to be sold on commission, the skippers taking the risk and San Francisco merchants acting merely as agents. Such conditions clearly called for some central direction and concentration of authority.

The Chamber of Commerce lost no time in accomplishing the objects for which it was formed. Congressional authorization was given for installing a fog signal on Angel Island and for building lighthouses on Ano Nuevo Point, Cape Mendocino and Yerba Buena. Fortifications for Alcatraz and Fort Point, and a Marine Hospital on Rincon Hill, were also approved.<sup>1</sup> As time passed other purposes to which the chamber's efforts could be directed arose repeatedly and it came to be an indispensable institution.

An astounding fortune in gold amounting to six hundred millions of dollars was destined to be taken from California's back-country in the decade from 1849 to 1860. Already the yellow metal

<sup>1</sup>Kunze, C. E.: *Older Than the State*; San Francisco Business, Sept. 5, 1925.



From the collection of Charles B. Turrill

*San Francisco Water Front Program 1853*

was pouring into the city to form a basis for its growth. Decline in gold production during the next few years was soon to drive home the fact that mineral wealth could never be wholly depended upon, if San Francisco was to continue to grow and expand. The immediate reaction was alarm at the new trend of affairs, and business depression set in.<sup>1</sup> The annual gold supply continued to hover around fifty million dollars, but faith in what was once thought to be a boundless supply was forever shattered.<sup>2</sup>

San Francisco at the time of its first financial difficulties, was an interesting city composed of an heterogeneous array of brick, stone, and wooden buildings. There was little settlement west of Clay Street Hill, the city's highest eminence. The International Hotel, a leading hostelry, was located in Jackson Street below Montgomery, and was considered very centrally situated, convenient to steamer landings, Customs House and wholesale district. At the corner of California and Montgomery streets stood the Parrott Block, a structure built of granite shipped from China and assembled by Chinese workmen. This building was torn down in 1926 to make room for a skyscraper, but served its purpose to the last, having been successively a home for Page, Bacon & Company, a banking firm; for Wells Fargo & Company, and toward the last, for numerous offices.

The American Theater was located directly across the street. A seed store occupied the present site of the Bank of California, and a grocery store the corner of California and Sansome streets. These are cited as being within the city's principal business district, which was soon to move gradually southward, after an effort to develop North Beach commercially failed.<sup>3</sup>

Graphic proof of the generally sterling character of San Franciscans is seen in repeated recoveries between 1849 and 1851 from six serious conflagrations which destroyed large portions of business and residential districts, causing losses aggregating \$24,000,000.<sup>4</sup> "Probably the destroyed buildings were reckoned on their rental rather than their reproduction value, for Soule informs us that reconstruction began at once and 'on a more costly basis.'"<sup>5</sup> These catastrophes, while seemingly insurmountable obstacles at the time, proved to be of inestimable benefit to the city from an architectural standpoint, for from 1850 to 1870 the business structures erected

<sup>1</sup>Murdock, C. A.: *A Backward Glance at Eighty* (1921), p. 102.

<sup>2</sup>Eldredge, Z. S.: *Beginnings of San Francisco* (1912) Vol. 11, p. 608.

<sup>3</sup>Murdock, C. A.: *A Backward Glance at Eighty* (1921), pp. 103-104.

<sup>4</sup>Soule, Frank: *Annals of San Francisco*, pp. 598-613.

<sup>5</sup>Kunze, C. E.: *Older Than the State*; *San Francisco Business*, Sept. 9, 1925.



*Outer  
Telegraph  
Station*



*Inner  
Telegraph  
Station*



*View  
in the  
Interior of  
California*

were singularly graceful, being of pure lines undoubtedly originating in the minds of the foremost architects of London and Paris. These buildings, which succeeded the English-colonial, brick and stucco faced structures, later widely used in interior towns, compared favorably with modern architectural creations up to the time of the great fire of 1906.<sup>1</sup>

The virility of San Francisco in meeting reverses quickly and successfully and its commercial growth, made necessary organizations to care for merchants' common needs. Merchants' exchanges were the outcome and originally there were a number of them, one of which, run by George F. Sweeney and Theodore F. Baugh in Sacramento Street, survived lively competition. The principal service rendered by a merchants' exchange lay in advising its clients of the arrival of ships off the Golden Gate so that representatives of various firms could make haste in meeting them and negotiating business before the vessels came to anchor. A system of visual signalling by semaphores and flags had been established by Sweeney and Baugh in 1849, to flash news of incoming vessels from a lookout station on the south head of Point Lobos, by way of the Presidio House and Telegraph Hill to the town. While this method of transmitting messages was excellent on clear days, it was absolutely useless in foggy weather, so the partners in 1853 took upon themselves the then stupendous task of constructing an electric telegraph line from Point Lobos to the Merchants' Exchange via Telegraph Hill, a distance of eight miles. Success for Sweeney and Baugh was from that time assured. The line became one of the marvels of the locality.<sup>2</sup> This was the start of rapid communication by electrical means in San Francisco.

As has been said, the condition of the city's streets was very poor and the problem of drayage over steep hills was serious; messages could only be sent by messenger and unavoidable delays necessarily occurred. It happened that D. A. McKinley and J. McKinley maintained six coal yards in various parts of San Francisco. Their main yard was in the downtown district, at Geary and Mason streets, and it was here that people on their way to work left orders for coal deliveries. The coal however had to be transported from yards nearest the address to which it was to be taken, in order to save long hauls across the city. It was found that a great deal of

<sup>1</sup>Eldredge, Z. S.: *History of California* (1915), Vol. V, p. 472.

<sup>2</sup>Kunze, C. E. *Older Than the State*; *San Francisco Business*, Sept. 9, 1925.

time was lost in sending orders from one yard to another and as a solution for their problem the McKinleys looked to modern agencies. They saw the success of the Merchants' Exchange telegraph and in due time erected a line of the same nature between the six coal yards. So well did the new system work that it remained in operation until 1878, when it was replaced by the telephone, proving again the readiness with which San Franciscans welcomed innovations and new inventions. This statement is well substantiated by subsequent events.



*Alcalde's Office, Portsmouth Square, 1850*

---

## CHAPTER VI

### The Silver Era

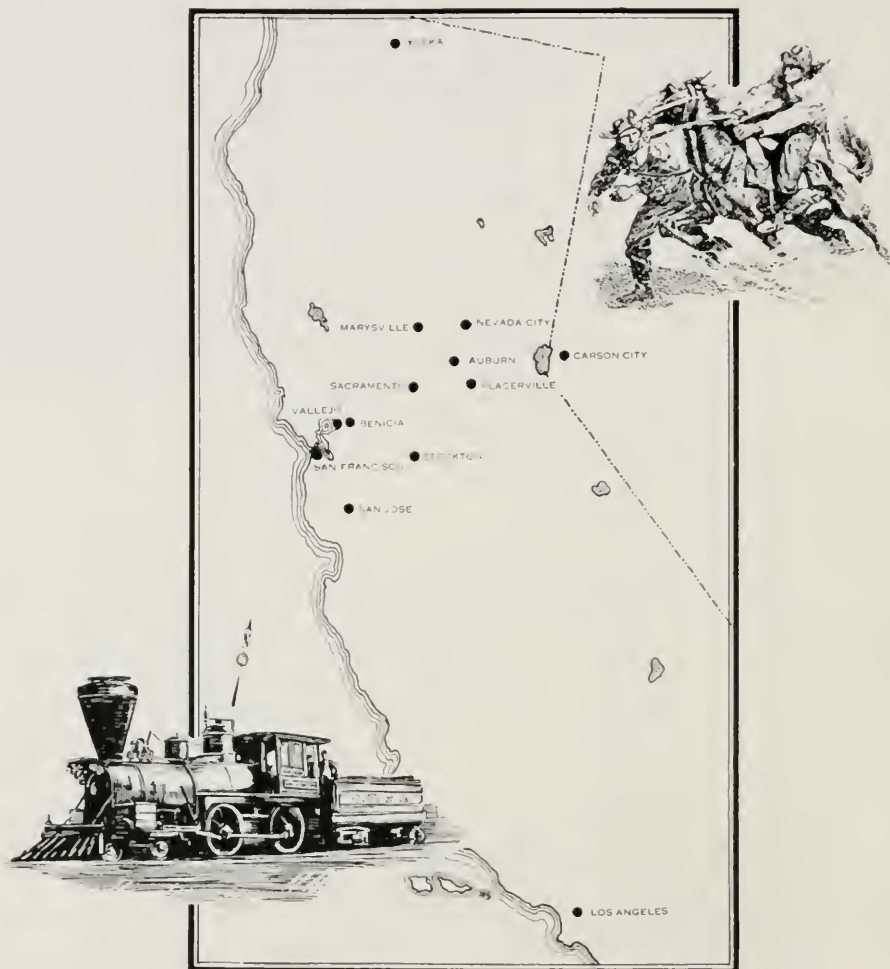
AFTER the period of depression resulting from a decreasing gold supply prosperity returned to San Francisco, as often happens, by a hidden by-road, coming from nowhere and leading to the rainbow's end. The path of riches in the early sixties led from barren Nevada hills, where phenomenal finds of silver had been made. The richest mines were either owned or controlled by San Franciscans, and for the time being fortunes were made in stock speculations rather than by unearthing any large quantity of precious ore. Prosperity in San Francisco became absolutely dependent upon reports from Virginia City<sup>1</sup>—a reincarnation of the forty-niner town by the Golden Gate. A quaint little story is hidden in the glamor of the Nevada find.

Just as the year 1859 was about to wink out, a Canadian trapper and fur-trader named Comstock, known also as "Old Pancake" because of his skill in preparing this staple food, stumbled upon a vein of exceedingly rich quartz on the slope of Mt. Davidson in the Washoe Range. Comstock claimed to have found the nest of silver, but the lode was really discovered by a couple of Irishmen, O'Reilly and McLaughlin. Comstock however, argued them out of a third share in the mine and even went so far as to give his name to it.<sup>2</sup>

During 1862 the Comstock Lode produced six million dollars worth of silver—a fraction of the three hundred and fifty million dollars worth of metal it was to give up in the course of thirty years. Its stock went to a staggering figure of sixty-three hundred dollars a share in 1862. With the opening of other mines, over one hundred companies were formed and one year after the strike was made, three stock exchanges were in operation in San Francisco. This was the time when great fortunes were made by the "bonanza kings"—fortunes that played a major part in building up and making San Francisco the city it came to be in the next two decades. A repeti-

<sup>1</sup>Eldredge, Z. S.: *History of California* (1915), Vol. IV, p. 242.

<sup>2</sup>*Ibid.*: Vol. IV, p. 228; San Francisco Chamber of Commerce Handbook (1914), pp. 14, 15.



*California's principal communities, though widely separated by miles, became more closely correlated when, in the early 60's, the telegraph became more dependable. The Pony Express, colorful and romantic, gave way to the trustworthy Iron Horse and California's growth reflected its closer contact with the large progressive centers of the Eastern States.*

tion of gold-rush days came in 1864, when the public began to see that the silver supply would not last, although the output of that year reached sixteen million dollars.<sup>1</sup> A panic ensued that went far toward sobering those intoxicated by sudden, Midas-like riches.

Another last flare-up of spectacular activity in the Nevada silver mines came ten years later, when stock speculation was eclipsed by enormous yields of the Comstock Lode, Consolidated Virginia and Gold Hill bonanzas. The Belcher and Crown Point mines alone gave up forty million dollars worth of the white metal in four years.<sup>2</sup> The combined value of Comstock shares increased for two months, at the rate of one million dollars a day, and San Francisco received the major portion of this enormous fortune—one of many poured into her lap.

With riches in such abundance it does not seem strange that San Franciscans and inhabitants of interior towns turned their attention to breaking down barriers of time and space that separated them from each other and from the continent at large. Eagerness for news from the East during the Civil War prompted the establishment of the pony express by private agencies. Letters were carried from Sacramento to St. Joseph, Missouri, in ten and one-half days; and from San Francisco to New York City in fourteen days.<sup>3</sup> This means of rapid communication went far toward assuaging a general unrest felt by Californians, as to whether the state was to support the North or the South. The issue proved to be short lived and San Franciscans showed their loyalty by subscribing twenty-five thousand dollars a month to the sanitary commission or hospital service of the Union armies—much to the astonishment of the entire nation, which marvelled at the ability of one hundred and ten thousand people to pledge themselves to pay such a sum regularly.<sup>4</sup>

Californians quickly saw the value of electrical communication in knitting together towns and cities and in spanning the magnificent distances of their state. A telegraph line to connect San Francisco with San Jose, Stockton, Sacramento and Marysville was begun in 1852 and completed the following year.<sup>4</sup> In the face of many difficulties another telegraph line was built from San Francisco to Nevada City by way of Auburn. This line was later extended as far north as Yreka and in 1859<sup>4</sup> an even more interesting project of the

<sup>1</sup>Eldredge, Z. S.: *History of California* (1915), Vol. IV, pp. 223-252.

<sup>2</sup>*Ibid.*: Vol. IV, pp. 7-8.

<sup>3</sup>Eldredge, Z. S.: *History of California* (1915), Vol. IV, pp. 218-219.

<sup>4</sup>*Ibid.*: Vol. IV, p. 9.

same nature was completed to Los Angeles. It was intended that the latter telegraph line, which ran from San Francisco to Stockton, thence through the San Joaquin Valley on the mail route over the mountains and across the Mojave Desert to Los Angeles, would make possible earlier receipt of news by San Francisco papers by beating the time of the stages upon which entire reliance previously had been placed. The value of the line for the purposes of its construction was of brief duration.<sup>1</sup>

When the telegraph line from San Francisco to Placerville was extended to Carson City, soon after the Los Angeles telegraph was placed in operation, the latter declined in importance, for news was taken from pony express riders at the Nevada town and speeded by wire to San Francisco.<sup>2</sup> Before the establishment of the pony express, news dispatches had been brought via ship to Los Angeles and thence by stage to San Francisco.

One of the first results of the war to California came in 1861 with the completion of a transcontinental telegraph line, built by the Government to afford reliable communication with the Pacific Coast. This system gave San Francisco fast eastern service.<sup>3</sup>

A railroad from San Francisco to San Jose, then the state capital, was completed in 1863<sup>4</sup>—one year after the Central Pacific and Union Pacific were begun, as a final step in bridging the continent. The railroads to and from the East were joined at Promontory, Utah, six years later.<sup>5</sup>

The transcontinental railroad terminated at Sacramento, but it was not long before the need of connecting it with the bay region became evident. Benicia and Vallejo were rivals with San Francisco for the terminal, but after many complications the tracks were brought to the edge of the bay, giving San Francisco direct rail communication with the East.<sup>6</sup> One would think that the results of these triumphs would have been extremely beneficial, but, instead, a panic ensued from general and long existing business depression.

At the end of the sixties, San Francisco's population included two distinct classes, the very rich and the utterly poor, a condition that lasted until the city and state found a basis other than mining for wealth and industry.

<sup>1</sup>Hittell, J. S.: *History of San Francisco, etc.* (1878), pp. 324, 325.

<sup>2</sup>Hittell, T. H.: *History of California* (1897), Vol. IV, pp. 268, 269; Hittell, J. S.: *History of San Francisco, etc.* (1878), p. 325.

<sup>3</sup>Eldredge, Z. S.: *History of California* (1915), Vol. IV, p. 10.

<sup>4</sup>Hittell, T. H.: *History of California* (1897), Vol. IV, p. 350.

<sup>5</sup>Eldredge, Z. S.: *History of California* (1915), Vol. IV, p. 297.

<sup>6</sup>*Ibid.*, p. 302.

---

## CHAPTER VII

### San Francisco in the Sixties

WHEN the interest of San Franciscans became deflected from sudden riches by reverses in the silver fields, it was directed toward developing the resources of the state, especially those of great valleys finding outlets in the bay region. They saw San Francisco Bay as we see it today, "A fine sweep of water navigable for the largest ocean vessels over a stretch of well-nigh sixty miles . . . entered by a passage a mile in width . . . with over four hundred and fifty miles of open water available for anchorage." San Pablo and Suisun bays, forming its upper reaches, were from the first gateways for water traffic up the San Joaquin and Sacramento rivers,<sup>1</sup> through valleys possessing more extensive possibilities than any fields of gold and silver in the world. San Francisco came to be the metropolis of this rich empire.

A history of San Francisco is primarily a description of various stages in its growth and development, and by forming mental pictures of representative periods we can best understand the events and achievements that have made it one of the world's greatest cities. Let us look, therefore, at the San Francisco of the sixties.

The Embarcadero, then called East Street, was floored with planks spotted with gaping holes through which swirling bay waters could be seen and bay odors could be readily if not pleasantly detected. Straw was strewn over the rough pavement to mitigate difficulties caused by thick mud. Sand and splinters were whipped about by varying winds, contributing materially toward making the waterfront district uninviting. Bush Street bounded the main business area on the south. The Occidental Hotel, one of the best hostelries in the city, was centrally located in Montgomery Street between Bush and Sutter streets.<sup>2</sup>

Market Street was magnificently wide, but was only partly and

<sup>1</sup>Keeler, Charles: *San Francisco and Thereabout* (1902), pp. 23-26.

<sup>2</sup>Murdock, C. A.: *A Backward Glance at Eighty* (1921), pp. 107-108.

# AMERICAN DISTRICT TELEGRAPH CO.

## OFFICES:

222 Sansome,

833 Sutter,

211 Kearny,

California and Filmore,

Mission and Twentieth,

Hayes and Laguna,

965 Mission, near Sixth,

Powell and Union

Messengers, Carriages, Coupes, Policemen and Special Service,  
BY TELEGRAPH,  
Any Hour of the Day or Night.

## TELEPHONES!

The famous "American Speaking Telephone" can be seen  
at our offices, where terms will be given for apparatus  
and lines. The popular CENTRAL OFFICE  
SYSTEM is at 222 Sansome Street.

THE

## United Carriage Company

Will furnish its splendid Carriages and Coupes on short notice. District Telephone  
Boxes and orders for their vehicles may be left at any District Telephone  
Office in the City; also at the General Office, 111

UNITED CARRIAGE COMPANY.

No. 2 New Montgomery Street.

*Telephone Announcement, American District Telegraph Company, No. 2 New Montgomery*

very poorly paved. St. Patrick's Church and an orphan asylum stood where the Palace Hotel is now located. A huge hill of sand reared its summit at the corner of Third and Market Streets where the Claus Spreckels Building stands, and work of clearing away this obstacle was going forward with the aid of steam paddies and a small railroad. It was, however, but one of many projects of a similar nature. The site of the Emporium was occupied by a Catholic school. Market Street was primarily a boundary line, for there were practically no business houses located south of it and all commercial as well as residential development extended out toward North Beach.<sup>1</sup>

San Francisco has always been fickle in favoring certain thoroughfares and then forsaking them without apparent reason. Clay Street had been for many years the center for dry goods, clothing and furnishing stores, but its place was gradually usurped by Montgomery Street, which came to be *the* street, so far as commercial activity was concerned. Clay Street began to "go down-hill" and came to be lined with boarding houses. Stockton Street still remained primarily one of residences. A riding school held forth on the site of the Flood Building, and a huge pavilion sponsored by the Mechanics Institute covered over one-half of Union Square.<sup>2</sup> One might go on indefinitely recounting old landmarks, but those already given serve to show the manner in which San Francisco had spread out since the fifties.

With expansion the problem of intra-city communication came to be one of increasing importance. New businesses were being established; the population was constantly growing; and here and there industries sprang up far from the recognized center of civic life. It was quite natural that men with vision should see in the success of telegraph lines to outside towns a means of knitting together by means of a network of wires professional men and clients, business men and their customers. This innovation was made possible through a central agency known as the American District Telegraph Company, which maintained a telegraphic call box system, similar to the messenger call boxes still in use. The boxes were installed in offices of the principal business firms and professional men in the city. A subscriber could, by simply pressing the proper button on a dial, flash his need to the central office where the signal

<sup>1</sup>Murdock, C. A.: *A Backward Glance at Eighty* (1921), p. 108.

<sup>2</sup>*Ibid.*: pp. 109-112.

would be recorded on a tape. One of a large force of messenger boys employed by the telegraph company would be dispatched immediately to call the cab, policeman, doctor or other party desired to the address where services were required. The saving in time afforded is obvious, but was not, of course, immediately appreciated by a majority of San Franciscans. The value of any invention of this type in daily activities is made evident only by the success of a minority in its use, and the limiting of the telegraphic system to a few essential services directed its appeal to a well defined group of customers.

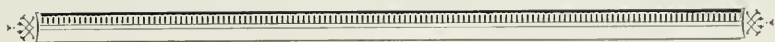
In the middle sixties the boundaries of the city were practically the same as those of today. In the course of fifteen years, limits had been definitely marked. The city had been laid out but had not been filled in with buildings. Expansion was, however, going forward at a healthy pace. There was little west of Larkin Street, and hardly any development out toward the Mission.<sup>1</sup> Probably the best indication of San Francisco's interest in civic improvements is seen in the attention paid the streets. In 1864 a record of nearly one million and a half square feet of planks were laid as street paving; and two hundred and ninety thousand square feet of cobble-stone pavement had been put in place at a cost of eighty thousand dollars a square mile.<sup>2</sup> Kearny Street, one of the main arteries of travel and trade, was found to be much too narrow and within a year 30 feet had been added to its width on the west side. It had originally been 45½ feet wide.<sup>3</sup> The city's first severe traffic problem had been met and successfully solved. It was during this period also that a good supply of water was made available through the completion of a comprehensive storage and distributing system.<sup>4</sup> In spite of depression, San Francisco had gone forward continuously and with the end of the sixties we bid two remarkable eras in the city's history farewell.

<sup>1</sup>Young, J. P.: *History of San Francisco* (1912), Vol. 1, pp. 409, 412, 413.

<sup>2</sup>Murdock, C. A.: *A Backward Glance at Eighty* (1921), p. 118.

<sup>3</sup>Young, J. P., *History of San Francisco* (1912), Vol. 1, p. 408.

<sup>4</sup>*Ibid.*: pp. 407, 408.



## CHAPTER VIII

### The Coming of the Telephone

WHILE the years prior to 1870 appeal most strongly to our sense of the romantic, dramatic and unusual, ensuing decades are by no means destitute of the same qualities, but these are subordinated to a general and determined progressiveness punctuated by many amusing and sometimes distressing foibles.

The period of the seventies was "an era of powerful men, of greed and lavishness in spending, and of a vulgarity such as the world had never before suffered."<sup>1</sup> A certain beauty previously distinguishing California was ruthlessly pushed aside. Art succumbed to money; and art of all kinds, good and bad, was continually imported until the town fairly bulged with it. If ever taste in architecture and general conceptions of beauty went to smash, this was the time. The more well-to-do inhabitants maintained close connections with Europe, looking to its markets for every personal and domestic need. Atrocious crimes in architecture were perpetrated upon the city in mansions built for the rich. Lathes, jig-saws and stone-masons worked all hours producing scroll-work and jim-cracks to meet an insatiable demand. Middle class residences were built on a similar though more modest scale, with inevitable bay windows to catch the sunlight.<sup>2</sup> For many years architecture ran rampant in one last fling between two conservative periods.

San Francisco's business district has always been fickle to old loves, drifting here and there as guided by winds of prosperity. Originally, hotel and retail business buildings clustered about Portsmouth Square, but when made lands came into existence, stores, wholesale houses, offices and hotels moved down onto them, nestling here and there near the bases of hills.<sup>3</sup> This propensity was directly responsible for the city's famous Chinatown, for no sooner

<sup>1</sup>Eldredge, Z. S.: *History of California* (1915), Vol. V, p. 475.

<sup>2</sup>Irwin, Will H.: *The City that Was*, *New York Sun*, April 21, 1906 (Reprinted by B. W. Huebsch New York, 1907).

<sup>3</sup>Gentile, Arnold; Irwin, Will H.: *Old Chinatown* (1908), pp. 9, 10, 11, 12.

were buildings about the Square vacated than the Chinese moved in,<sup>1</sup> bringing their own ideas concerning architecture. The structures the Chinese bought had been gracefully designed by French planners, with clear-cut lines characteristic of early San Francisco's more pretentious business blocks. The Orientals, with utter disregard for esthetics, added lean-tos, sheds, out-door booths, balconies, cellars, underground passageways and dungeons, all to make room for their ever increasing population, which ranged from ten to thirty thousand, according to the season.<sup>1</sup> A very plausible reason for this bit of intensive settling lies in the fact that white men foresaw a possible encroachment on their new business area to the south, and by a city ordinance<sup>1</sup> limited the Chinese settlement to eight city blocks. St. Mary's Church, the first Roman Catholic Cathedral, marked the southern edge. Repeated efforts were made to oust the Chinese, but they had paid good prices for their property and were not inclined to move. To this day, Chinatown remains, completely rebuilt, of course, as evidence of the sagacity of pioneers from a land far away across the Pacific.

The Latin quarter owes its inception to a little band of artists, the members of which sought on the heights of Telegraph Hill a point of inspiration away from the hurry and flurry of the city. It was not long before quaint houses of an Italian colony were tumbling over the hill. Spaniards and Mexicans added inevitable balconies to old buildings occupied by them and used color of vivid hues rather indiscriminately.<sup>2</sup>

Overlooking the city and neighbor to Chinatown was Nob Hill, crowned with residences acknowledged the most pretentious and richly furnished in the world. In these lived bonanza kings of gold and silver fame, and lucky participants in other western adventures. What a source of inspiration it must have been to them to look down from the brow of the hill onto the roof-tops of the new city, flowing out over the virgin territory of the lowlands.

The center of life in San Francisco may be fairly accurately judged by the situation of its principal hotels. In the period with which we are concerned, the Palace Hotel at the corner of Market and New Montgomery streets was the most fashionable hostelry. The Grand Hotel, a three-story building, with mansard roof, stood on the east side of New Montgomery, directly opposite the Palace.

<sup>1</sup>Genthe, Arnold; Irwin, Will H.: *Old Chinatown* (1908), pp. 9, 10, 11, 12.

<sup>2</sup>Irwin, Will H.: *The City That Was*, *New York Sun*, April 21, 1906, pp. 45, 46 (Huebsch Edition, 1907).

The Lick House, a family hotel, was located at Montgomery and Sutter streets; the Occidental Hotel extended from Bush to Sutter Street and fronted on Montgomery, and the Cosmopolitan Hotel, a stopping place for business travelers, stood at the intersection of Bush and Sansome streets.<sup>1</sup> The fact that retail and wholesale areas and the city's theatrical district lay in immediate proximity to the hotels gives us the most plausible reason for their situation.

A continually increasing population naturally brought serious traffic problems, the pedestrian angle to which was in a measure solved by the introduction of omnibuses in the fifties and of horse-cars early in the sixties. Equine power was not, however, equal to scaling steep hills without distressing efforts and often serious accidents.<sup>2</sup> Andrew S. Hallidie, a young engineer and manufacturer of wire rope, who had met with singular success in constructing a railway in the mining country, readily saw the applicability of a cable railway principle to a solution of this peculiar problem. He lost no time in obtaining the aid of various individuals and sufficient capital to carry out the idea. In 1873, the first cable car line was placed in service on the Clay Street hill, from Kearney to Leavenworth streets.<sup>3</sup> The innovation found immediate favor and today practically every thickly populated hill district may be reached by means of these little vehicles that climb steep heights, seemingly without effort.

With the beginning of 1876 hard times befell San Francisco. There had been little rainfall. Ranchers were distressed. The output of the mines fell far below normal.<sup>4</sup> The city was filled with a restless army of unemployed men. A natural sequence was trouble of some sort or other and when it occurred the Chinese were made to suffer. White men sacked their laundries, dwellings and stores and affairs came to such a state that armed forces were called upon to quell the disturbance,<sup>4</sup> which had its origin in a growing jealousy of Chinese industry and labor.

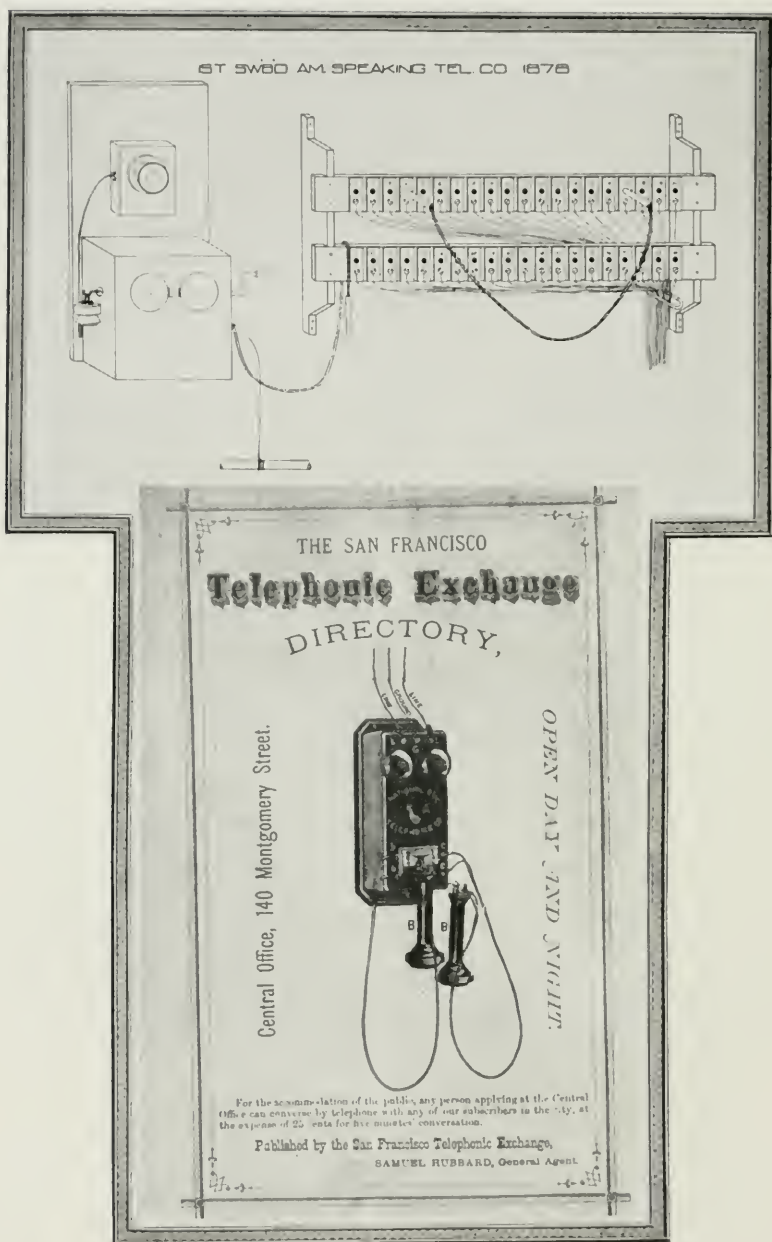
This was the San Francisco of 1877, the year in which the telephone was introduced as a solution for the city's problem of intra-city rapid communication. A switchboard was installed by the Gold and Stock Telegraph Company, owners of the American District Telegraph Company, in an office at 222 Sansome Street, in the

<sup>1</sup>Turrill, C. B.: *California Notes* (1876), Vol. I, pp. 60-62.

<sup>2</sup>Hittell, T. H.: *History of California* (1897), Vol. IV, pp. 521-522.

<sup>3</sup>Hittell, T. H.: *History of California* (1897), Vol. IV, pp. 521, 522, 523.

<sup>4</sup>Murdock, C. A.: *A Backward Glance at Eighty* (1921), pp. 133-138.



*Cover page San Francisco telephone directory, 1878*  
*Above, first telephone switchboard, San Francisco*

summer of the year with which we are concerned. The original company soon came to be known as the American Speaking Telephone Company, and was an offspring of the Western Union Telegraph Company. When the first exchange was opened but eighteen telephones were connected to its switchboard. One year later San Francisco's first telephone directory was issued. It listed 178 names, nearly all of which were of business firms.

San Franciscans had always been particularly progressive in adapting new inventions to their needs, as was seen by the readiness with which the telegraph was put to practical purposes almost as soon as the principle was discovered. The telephone was no exception, for as early as 1876, the same year in which it was invented by Alexander Graham Bell, an experimental line was rigged up between Meiggs Wharf and the Merchants' Exchange, proving again the wide-awake character of this organization. In the spring of the following year, San Francisco saw its first telephone line for practical use installed. It was constructed for Frederick Marriott, Sr., publisher of the *San Francisco News Letter*, and connected his office in Merchant Street with his home in Jones Street.

Outside of the readiness with which a few business houses subscribed to telephone service, no particular significance was at first attached to Bell's invention, and it was only after many years had elapsed that the value of the telephone as a public necessity and convenience became evident.

The first telephone switchboard installed by the Gold and Stock Telegraph Company was a very crude affair. It consisted of two boards, nailed to brackets on the wall, along each of which was ranged a row of brass clips. Each clip formed the terminal of one telephone line, and in the center of each a hole was drilled to receive a plug. Connections were made between subscribers' lines by tying the proper clips together by means of two brass plugs joined with a piece of cotton covered wire.

When the first switchboard was installed, subscribers could call the operator only by means of the District Telegraph line, as no means were provided for ringing him directly. To get another number in the system, the subscriber first turned in the *telephone* call to the District Telegraph office, which was located in the same room with the switchboard. This call was registered on a tape. The tape was passed by a telegraph operator to one at the switchboard who completed the connection.

## AMERICAN

211 KEARNY STREET  
TWENTIETH and MISSION  
POWELL and UNION

833 SUTTER STREET  
HAYES and LAGUNA  
BLICKERTOWN

## OFFICES

Names preceded by stars are connected with the **CENTRAL OFFICE SYSTEM** and can be switched into private connection with each other.

- Directory, American Speaking Telephone Company, 1878*

Data concerning early telephones in San Francisco has been neglected in nearly all histories, not because the value of rapid communication facilities was not appreciated, but because at the time it was introduced political and economic affairs were in such a unsettled state as to occupy the entire stage, to the exclusion of other events of a less spectacular nature. Another reason might be seen in the matter-of-fact way in which the telephone gradually became part and parcel of ordinary business and social life. Its growth was not rapid, for people had to be educated in its use,<sup>1</sup> a process then still in progress. The telephone insinuated itself, one might say, into the communication breach.

A mental picture of the manner in which pioneer telephone customers made use of the new system and of the way in which service was given, should be interesting to San Franciscans of this day. A short resumé of this nature follows:

The central office of the National Bell Telephone Company, a rival concern organized at about the same time as the American Company, was signalled by means of a magneto furnished with each telephone. A set of extension bells was arranged on the wall above the switchboard, but the sounds from these bells were so similar in tone that it was very difficult to trace the calling line. The difficulty was overcome by suspending a cork from the tapper of each bell with a piece of string about eighteen inches long. Whenever a bell rang the calling line could be identified by the bobbing of the cork.

After a period of intensive competition the American Speaking Telephone Company and the National Bell Company consolidated in 1880, under the name *Pacific Bell Telephone Company*. A great deal of the trouble between the former organizations had come about through patent questions concerning the American Speaking Telephone Company's use of the Edison instrument, which the National company considered an infringement upon the Bell patents. With a cessation of hostilities the National switchboard was brought to 222 Sansome Street, an office from which all telephone customers were served until 1886. Both switchboards were soon greatly improved through the introduction of what is called a "jack and drop" board, modifications of which are still in use in some rural exchanges.

Up to a time shortly after the consolidation of the two companies, switchboards were operated by boys in their 'teens. Ami-

<sup>1</sup>Young, J. P.: *History of San Francisco* (1912), Vol. II, pp. 583, 584.



*House-top construction,  
1887*



*Group of operators, 1884*

cable relations between the telephone company and its patrons were repeatedly jeopardized by the proneness of these young fellows to use unseemly language. Their customary "Hello, hello, what do you want?" and "Are you through? Well, why don't you hang up?" did not strike company officials as being quite the proper way to talk to customers. Attempts to impress upon the boys the necessity of being polite proved futile, and they were eventually transferred to other jobs, women being substituted in their places.

However boys continued to hold sway as night operators for several more years, as it was not supposed women would care to work nights. But for the fact that John I. Sabin, vice president of the company, received many complaints concerning night telephone service, boys might have been delegated to the task indefinitely. Mr. Sabin made a tour of inspection one evening and found night operators curled upon the floor beside the switchboards, peacefully sleeping. The boys were discharged and women were employed for night work. Since that time telephone operating rooms have been considered to be as peculiarly a part of feminine domain as the home.

With the telephone coming into more general use, the volume of business grew large enough to enable the company to reduce its rates. Charges for service were gradually decreased until by 1885 the cost to the subscriber was but five dollars a month for a telephone instrument, plus five cents for each call completed.

The telephone's growing popularity brought, of course, new requests for service, and necessitated constant expansion of company property and equipment. No difficulty was encountered in finding competent men for outside construction work, since telephone and telegraph lines were strung in identically the same manner. Experienced men could therefore be taken from the telegraph company.

In the seventies all telephone wires were strung from house-top to house-top, as poles were considered too great an expense for a young company to bear. The number of lines grew so rapidly that it was not long before nearly every roof in the downtown district bore a large frame supporting telephone, telegraph and messenger wires. In San Francisco's residential section lines were usually carried by boards nailed to roofs and projecting in front of the buildings. They were strung back and forth across the street, in order to keep them out in the open where they could be easily inspected

from the ground. This practice at least obviated the necessity of climbing to roofs of houses along the line.

By the time 1880 rolled along, house-top construction had proved unsatisfactory. The lines had become so numerous in the downtown area as to constitute a nuisance. People hanging laundry on roofs were constantly tripping over wires or bumping into them. Complaints came in about leaks caused in roofs by nails driven by construction crews. It came to be evident that house-top wires were soon to be outgrown; the first step in an interesting evolution.



*Customs House, erected in 1854 on Battery Street*



## CHAPTER IX

### The Development of the Seventies

THE seventies had by no means been devoid of interesting events having a great bearing on the development of now indispensable public services. The first electric light in the city was exhibited from the roof of St. Ignatius College by the Reverend Jos. M. Neri in 1876,<sup>1</sup> paralleling the invention of the telephone. The *Chronicle*, published by Charles de Young, had two electric arc lights installed in its editorial rooms in 1878. The lamps and generator, a Gramme machine, had been brought from Paris by the owner, who firmly believed that time would come when electric light would be universally used.<sup>1</sup> When electricity was first put to general practical uses, the cost for an arc light, the only kind of lamp used, was ten dollars for each lamp per week, with the current turned off at midnight.<sup>1</sup> Many types of generators were used in the beginning, but the current furnished was very weak and uncertain.

The interest of the period, however, centered not so much in new inventions as in civic expansion and improvement. Although work of razing sandhills along Market Street was, in 1876, barely started, and there was much land yet to be leveled in the downtown section, the thoughts of those responsible for city government, as early as about 1869, turned to serious consideration of creating a public park.<sup>2</sup> This was brought about by an increase in the city's population from fifty-seven thousand to one hundred and fifty thousand, in the course of one decade.<sup>3</sup>

Several sites for a park were considered, none of which seemed to have the necessary qualifications. A favorable decision was reached in the city's suit for the four square leagues of land allowed under Mexican law; but all land west of Divisadero Street was unsettled as to title.<sup>4</sup> The case was appealed and this disputed territory came

<sup>1</sup>Young, J. P.: *History of San Francisco* (1912), Vol. II, p. 583.

<sup>2</sup>Turrill, C. B.: *California Notes* (1876), Vol. I, pp. 49, 50; Young, J. P.: *History of San Francisco* (1912), Vol. I, pp. 409, 410, 412, 413.

<sup>3</sup>Murdock, C. A.: *A Backward Glance at Eighty* (1921), p. 130.

<sup>4</sup>*Ibid.*: p. 128.



*San Francisco, 1876*

within boundaries of the municipality. The Board of Supervisors immediately set aside over one thousand acres of hill and sand dune land for a public park,<sup>1</sup> to be located out near the coast line of the peninsula. The state legislature in 1869 appropriated one hundred thousand dollars to cover costs of reclaiming this unpromising waste during the first year, seventy-five thousand dollars for the second, and fifty thousand for the next three years.<sup>2</sup> The work was put under supervision of John McLaren, a landscape engineer of prominence. Barley and lupine were sown in the sands during early winter. Light rains soon came; the barley sprouted readily, the lupine a little more slowly, but before spring came the dunes were covered with a luxuriant coat of green, and drifting sands had been stopped.<sup>3</sup> Rare trees and foliage were planted, drives laid out and paths made, in a project that has given to San Francisco one of the most beautiful and famous parks in the world.

Lotta's Fountain on Market Street should mark in observers' minds the introduction of the telephone and electric light and other events of 1876. It was given to the city by Lotta Crabtree, an actress, at the time when cast iron statuary and monuments were in vogue. Although it may have been eclipsed in beauty by subsequent creations, the fountain will ever remind people of a day "when San Francisco wore her heart on her sleeve and laid great stress on the virtue of friendship."<sup>4</sup>

The seventies will always remain a period unique in San Francisco's annals. Its days were those of six day walking contests, of the introduction of professional baseball, of the revival of pugilism,<sup>4</sup> and of quaint characters such as Emperor Norton. The latter gentleman paraded the streets, dressed in a dingy uniform with conspicuous epaulets, wearing a plumed hat, and carrying a knobby cane. He made his living by selling scrip in his imaginary empire in a fifty cent denomination.<sup>5</sup> Old residents talk yet about Woodward's gardens, a six-acre tract on the west side of Mission Street between Thirteenth and Fourteenth streets, which boasted a museum, conservatory, aquarium and zoological gardens.<sup>6</sup> There were lavishly equipped restaurants, famous the world over; palatial mansions, modest homes, splendid churches, and disreputable quarters. Out of this hodge-podge developed a city combining the hectic life of

<sup>1</sup>Murdock, C. A.: *A Backward Glance at Eighty* (1921) p. 128.

<sup>2</sup>*Statutes of California, 1869-1870.*

<sup>3</sup>Turrill, C. B.: *California Notes* (1876), Vol. I, pp. 49, 50, 51.

<sup>4</sup>Young, J. P.: *History of San Francisco* (1912), Vol. II, Note One, p. 639; Note Two, pp. 609-639

<sup>5</sup>Murdock, C. A.: *A Backward Glance at Eighty* (1921), p. 136.

<sup>6</sup>Turrill, C. B.: *California Notes* (1876), pp. 55-57.

gold rush days with mid-Victorian conservatism; contrasting excessive riches with poverty—a city to thrive and stand until some three decades later, when a new San Francisco was to come into existence.

The period from 1880 to 1906 was in the main one of great progress;<sup>1</sup> and during some of these years the city's prosperity was remarkable. Dependence was no longer placed on gold and silver mines and business took other courses. But with everything seemingly on the up-grade there was nevertheless a feeling of stagnation.<sup>2</sup> Manufacturing, for instance, had a very slow growth in San Francisco. Importers and exporters were more concerned in obtaining through than local railroad rates, and industrial development in California was hindered by a practice of bringing eastern products into the state.<sup>3</sup> San Francisco's population and that of her neighbors was too small to encourage local industry. It was thought unwise to stimulate manufacturing artificially, and as the inhabitants had made their money in mining and kindred pursuits they were not eager to risk money on new and strange enterprises.<sup>3</sup> Labor troubles occurred regularly throughout the eighties and nineties, but were not responsible for industrial retardation. It was clearly seen that the city and state must grow normally to a certain size before California-made products could compete successfully with those of other localities where labor was cheaper and more plentiful. In the meantime raw materials were shipped out of California at low cost and manufactured goods were brought back at high rates.<sup>3</sup> The great industrial district south of Market Street in San Francisco was to remain comparatively undeveloped for many years.

The city in the early eighties retained all the characteristics of the previous decade. Businesses were slow in locating on Market Street, and maintained their old quarters in the vicinity of Bush, Montgomery, Sansome and California Streets. Some residential development took place in Divisadero Street, although there were plenty of vacant spaces between it and Van Ness Avenue, which was then considered to be out of town. It amused people of that day to hear the theory advanced that Van Ness Avenue would sometime be a great cross-town business thoroughfare.<sup>3</sup>

With a concentration of building and growth in a relatively small area the need for poles to carry telephone, telegraph, power

<sup>1</sup>Young, J. P.: *History of San Francisco* (1912), Vol. II, p. 661.

<sup>2</sup>*Ibid.*, Vol. II, p. 661.

<sup>3</sup>*Ibid.*: (1912), Vol. II, pp. 674, 675, 753, 754.

and messenger wires became urgent. The first pole line attempted by the telephone company was begun in front of the Sansome Street office in 1880, and was gradually extended until house-top lines disappeared and the entire city was rebuilt with pole lines.

With the introduction of telephone poles in the business section of the city, each with eight or ten crossarms carrying twenty wires apiece, a new difficulty came up. The streets of San Francisco at this time were roughly paved with basalt blocks set in sand; a few were macadamized. Sidewalks were for the most part of asphalt. The street cleaning department had not been organized to function properly; winds were frequent and dust was blown up on the wires, each layer of which was made adhesive by moisture from fogs from the sea and bay. It was not an unusual thing for a trouble man to get reports of thirty or forty wires crossed in his district at the same time. The troublesome coating was deposited during the night and evaporated soon after the sun came up, so that by noon wires were cleared. The interference during the time the coating lasted rendered pole lines unsatisfactory. Salt air caused iron wire to corrode until it was impossible for a man to climb a pole without shaking down streaks of iron rust.

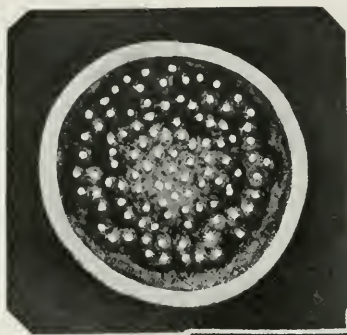
A solution for these difficulties was found in aerial cables, the first of which were simply bundles of insulated wires tied together and wrapped with tape. These were later supplanted by lead-sheathed cables, each containing fifty pairs of wires twisted together and insulated with cotton and paraffine. The sheath was impregnated with tar or asphaltum.

In an historical review of San Francisco the growing importance of cities on the eastern side of the bay must be taken into consideration. With their development came a consequent need for some sort of rapid intercommunication facilities other than those provided by the telegraph cable which stretched across the bay. In meeting this demand a transbay submarine cable was laid in 1885. It followed the same route as those now in use.

In tracing the development of the infant telephone industry, its first eight years might be termed a *period of technical development*. Up to 1883 the public had not grasped the significance of the new invention. It was put on its feet by a few earnest men, the most prominent of whom were George S. Ladd, the first president of the telephone company, and John I. Sabin, superintendent. Mr. Sabin later became General Manager, Vice President, and then President

of the Company. These officials realized the important part the telephone was destined to play in the every-day problems of the people, and in the growth, stability and welfare of the state. During these first few years they labored in the dark in an endeavor to perfect the service and make the telephone a vital and integral part of the lives of those whom it served and whom they desired it to serve.

A *period of forced expansion* resulted when people began to appreciate the telephone's value in their affairs. Upon the Pacific Bell Telephone Company fell the arduous task of developing the industry in San Francisco. While this was being accomplished vital communication facilities with other points in the state were not overlooked.



*50-pair, 18-gauge cable—Standardized by National Conference, 1887.*

*1212-pair, 24-gauge cable, largest number of pairs standard at present.*



*One of the earliest instances of the use of cable in the telephone plant seems to have occurred in San Francisco in 1879, where a cable, rubber insulated and containing forty wires, was run for a length of seventy-five feet from the open wire lines on the roof into the central office.*

---

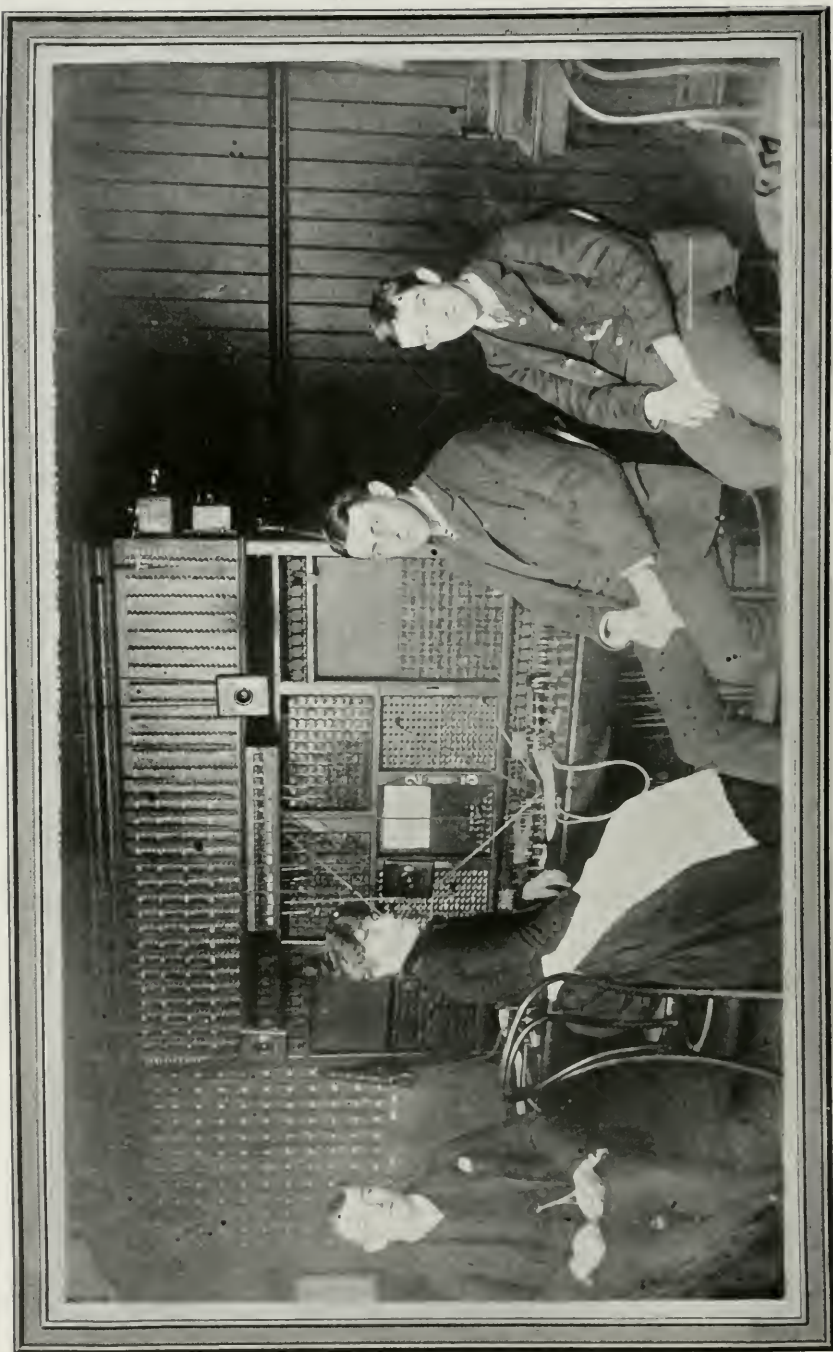
## CHAPTER X

### The Beginning of Long Distance Service

SAN Francisco has from its earliest days been the metropolis of a vast inland empire reaching far up the great river valleys converging at the bay. Before the railroads came, and for many years after their introduction, river craft carried raw products down the streams and manufactured goods on return trips. Country roads were in poor condition, and although stage coaches made good time, there had always been an urgent need for some means of transmitting news and business dispatches quickly. The telegraph solved the problem and many lines were built throughout central California. Although the first telephone exchange in the state was established in San Francisco, on February 18, 1878, it was not more than a month or so before exchanges were founded in Oakland, San Jose, Sacramento and other cities. Most of these smaller systems were privately owned, but were operated under sublicense agreements with the Pacific Bell Telephone Company.

With a large number of exchanges in existence, the next problem was to join them together in one large system. Inter-exchange or *toll* service came to be of fundamental importance, in aiding the telephone to accomplish its purpose of making all people in the state neighbors. The primary step in the achievement of this desire was the incorporation of the Sunset Telephone-Telegraph Company in 1883. The latter was under the same management as the Pacific Bell Telephone Company, but was organized as a separate company to operate in all Pacific coast territory outside of San Francisco, including the states of California, Oregon, and Nevada, and territories of Washington, Utah and Arizona. The name was changed in 1889 to the *Sunset Telephone and Telegraph Company*.

A central agency was essential in building up a state-wide telephone system, and the Sunset Telephone-Telegraph Company, in fulfilling this need, came to include many small companies that had sprung into existence outside of San Francisco. Work of building toll lines to connect scattered towns together was immediately



*South Office, San Francisco, showing old type 'board*

started. Funds needed were raised by popular subscription, subscribers receiving in return for their money script which entitled them to apply their investments to use of the lines.

The first long distance telephone line to be completed was that connecting San Francisco with San Jose and way points. This was in 1883. Before the end of that year San Francisco, Oakland, San Jose, Hayward and Benicia were brought into telephonic communication with one another. Soon afterward, other lines were placed in operation along the coast north of San Francisco; in the Sacramento Valley; in the east bay region; up Niles Canyon; and down the coast to Santa Cruz and Salinas.

With an increasing popularity of the telephone as a means of intercity communication, new equipment features were adopted to aid in handling the business. The first superimposed buzzer calling circuit was installed in 1892 between Hayward and San Francisco, and was used in passing calls for parties wanted by long distance. This system was later replaced by superimposed telegraph circuits, and extended to all the larger exchanges in the territory where the amount of long distance traffic warranted the employment of a Morse telegraph operator.

In pioneer days of long distance development there were no instruments, such as are used today, for gauging the location of trouble on a line. All tests were made by ringing on a line with a magneto bell; if it rang hard, the trouble was nearby, but if it rang easily, the line was either open, or the trouble was at some distance. Whenever some defect developed in a toll line, a man was started by horse and buggy from San Francisco with orders to keep going until he found it. Later a regular system of patrols was inaugurated to maintain these rambling pathways of wire. A patrol consisted of a lineman and his helper. They made their rounds in a wagon carrying all essential materials, and reported their location daily to San Francisco by wire. One could not accuse them of shirking or having easy jobs when consideration is given to their duties, which included repairing connections, re-setting poles, installing instruments and local switchboards, building branch lines, maintaining good order on the line entrusted to them, and making maps of the route, showing work performed.

Three main routes were traversed by patrols. One ran north from San Francisco, one toward San Jose, and one inland toward Stockton. The latter assignment was the longest, four months being

required to make the round. As soon as one trip was completed, the patrol set out immediately on another, following the same schedule and the same gypsy-like methods of living. The men camped out at night when farm houses or hotels were not convenient, and procured meals wherever they could. The long lines patrols have contributed an interesting chapter to telephone history, a chapter which did not close until they were discontinued in 1906.

It can thus be seen that the telephone company did not confine its activities to any one city or number of cities, but set out immediately after its organization to play its part in the furnishing of universal service, a task from which it has never ceased.



*Long lines patrol, 1890*

---

## CHAPTER XI

### The Nineties

ALL was not clear sailing for San Francisco during the early nineties, for in 1893 three serious panics occurred in the East and through the new means of communication, spread slowly to the Pacific Coast.<sup>1</sup> Although gold payments were maintained in California throughout the crucial period, inevitable hard times descended upon the city, for silver was steadily falling in price due to heavy production of the metal for two decades. Nevada, once the principal source of San Francisco's wealth, found her industries paralyzed. Prices declined, many banks and business houses failed, and producers suffered severely.<sup>1</sup>

In the face of adversity, San Francisco did not go into a slump as might have been expected. The downtown district took on a new lease of life in 1890 when the Chronicle Building was erected at the corner of Kearney and Market streets. This structure aroused great comment at the time, as it was the first steel frame building to be erected on the Pacific Coast. Towering ten stories above street level, it was regarded as a skyscraper, and there were those who thought that it had been built *ahead of its time*. A genuine service was performed by the Chronicle Building designers, of infinite value to San Francisco from an architectural standpoint. Although the lines of the new structure were not exceptionally beautiful, the flamboyancy of the seventies was completely absent;<sup>2</sup> and when other tall buildings were put up soon afterwards, the old order passed completely out of the picture.

With a concentration of offices in multi-floored buildings, which gained ready popularity, the problem of telephone, telegraph and power line construction became acute. It was no longer possible to terminate wires on the tops of buildings. A steadily increasing number of poles, cables, and wires along downtown streets brought the necessity of finding some other means of caring for transmission

<sup>1</sup>Young, J. P.: *History of San Francisco* (1912), Vol. II, pp. 753-754.

<sup>2</sup>*Ibid.*: Vol. II, p. 661.



From collection of Charles B. Turrill

Map of San Francisco, 1891

equipment. Early in 1892 the first underground cables were cut into service in parts of the downtown district to take the place of aerial cable. Ducts made of vitrified clay were laid in streets, and were known as *six-way* conduits because they contained compartments for accommodating six cables, the largest of which enclosed one hundred pairs of wires. All cables of the new system were, in the beginning, run to the main office at 216 Bush Street.

As branch exchanges were established over the city, they were inter-connected by trunk lines, and by a telegraph line known as the *Sabin calling line*, which was used to repeat numbers from one office to another. Thus, when a customer asked to be connected with a line which terminated on some other switchboard than his own, the operator first made a connection with a trunk line to the proper office, and then telegraphed to an operator at the second central office the number desired. Out of the Sabin calling line grew the complicated system of inter-office lines known as *order trunks*.

The period starting with 1887 seemed to be one of private initiative, for San Franciscans were bent on increasing the value of their properties as soon as possible, without waiting for municipal departments to get around to the tasks. Hundreds of miles of streets were paved through the efforts of groups of citizens, imbued with the desire to make their lands more valuable by making them more accessible. Pavements laid through this means were given to the municipality for its perpetual care.<sup>1</sup>

While various agencies were working for a better and more widespread city through improving and extending transportation conveniences and facilities, the demand for telephone service was increasing rapidly. There was no concentration of building activity in any one locality after 1895.<sup>2</sup> Gone were the days when a majority of business houses hovered around one locality. Construction went forward over a large area appropriated for commercial purposes, and consequently no impressive effect was attained. There was no attempt made to approach a homogeneous style of architecture, and if a splendid new structure was set down in a district of old buildings, it did not alter the aspect of the locality. South of Market Street, for instance, fireproof structures would as often as not be sandwiched in between vine-covered cottages.<sup>2</sup> This practice, it may readily be seen, had a vital bearing on telephone construction

<sup>1</sup>Young, J. P.: *History of San Francisco* (1912), Vol. II, pp. 713, 715, 753.

<sup>2</sup>*Ibid.*: (1912), Vol. II, pp. 754-758.



*Double deck arrangement of switchboards, West office operating room, 1896*

for facilities had to be provided over a wide area in caring for the demands of customers of varying requirements, scattered here and there in districts of mixed characteristics and needs.

The development of outlying residential districts also went forward apace, due to activities of real estate associations. There was no pronounced boom, but thousands were induced to buy lots, build homes and settle in rather remote localities upon being assured that within the near future street car lines would be built to afford owners adequate transportation facilities.<sup>1</sup> Their disappointment was largely responsible for bringing up the question of car lines.

Up until 1880 the privilege of building a car line was not regarded as valuable in San Francisco, and many franchises were granted as early as 1874, some for twenty-five years. Many of these franchises proved to be invaluable and others to be worthless.<sup>2</sup> As matters turned out however, this miscellaneous granting of permits brought into existence what came to be known as *zig-zag* car lines. That is, one company in order to hold exclusive rights on a number of streets, would run cars for a few blocks on one street and would then curve its tracks over to a parallel thoroughfare, repeating the process indefinitely. A really short journey for a passenger might in this way turn out to be one of several miles. Competition was nevertheless effectively smothered, for a new company could not hope to give good service under such conditions.<sup>2</sup>

Cable cars were run on Market Street until after 1906,<sup>2</sup> when it was found that electric lines were less costly to operate; for under the old system considerable recurring expense had been caused by wire cable wearing out. Electric traction was existent in 1900, a franchise having been granted in 1890 for a line from the intersection of Market and Eddy streets along the latter thoroughfare to Divisadero. On Market Street cable car tracks occupied a central position and were flanked by those of a horse-car line which was maintained until a short time after 1906\* for the purpose of holding a franchise. Although it was voted in 1898 to issue bonds for constructing the Geary Street railroad, municipal ownership of street railways did not become a burning issue until three years later, when the Market Street lines were sold to a Baltimore syndicate.<sup>2</sup>

While civic organizations and municipal departments were

<sup>1</sup>Young, J. P.: *History of San Francisco* (1912), Vol. II, 754-758.

<sup>2</sup>*Ibid.*: Vol. II, pp. pp. 759, 760, 761, 762.

\*Note—Photographs in Young's History show but two tracks in 1909.

searching for means to provide essential facilities for the accommodation of a constantly growing population and an expanding city, the telephone system in spite of adverse circumstances was built up to care for San Francisco's need for rapid communication. The story of this remarkable development rightfully belongs in a chapter by itself.



*Installation crew and old type switchboard Park office, San Francisco, 1899*

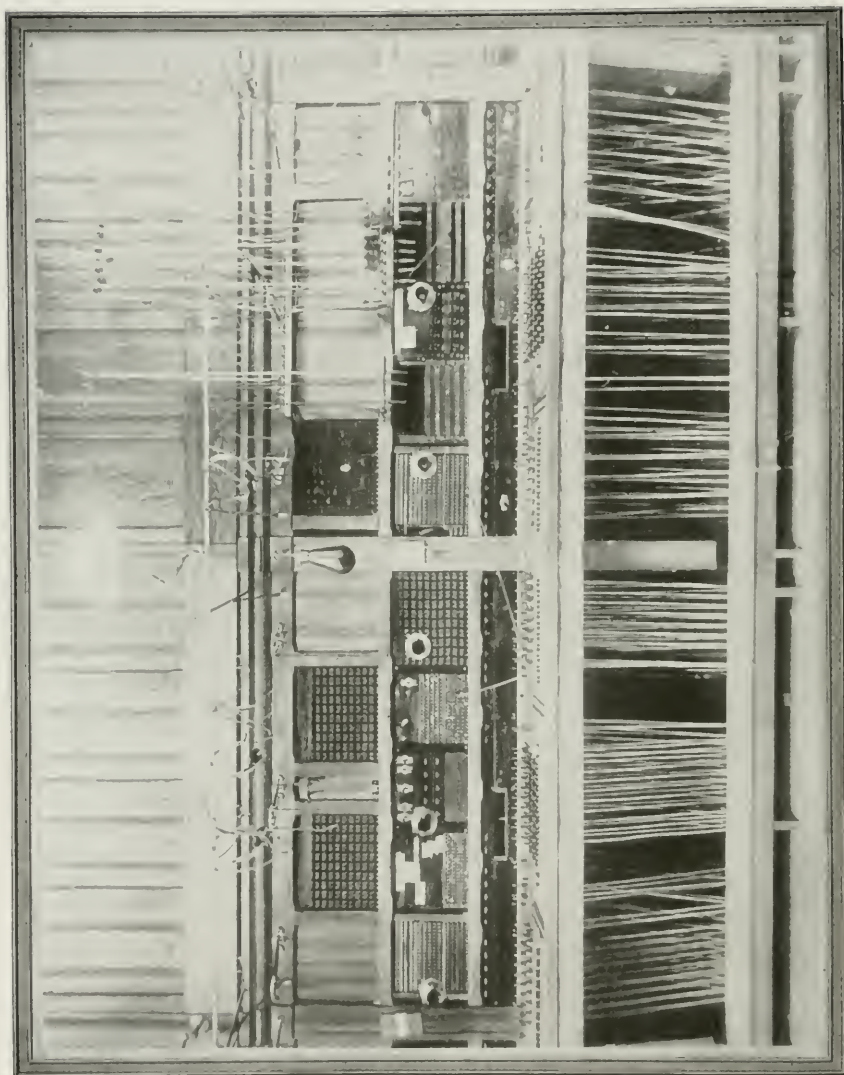


## CHAPTER XII

### The Development of the Telephone System

THE growth of the telephone industry, from the standpoint of instruments in service, was not spectacular in the early days, but the constant expansion of the city, combined with an increasing realization in the minds of the people of the value of the telephone, brought about a critical situation in 1886, when old equipment and quarters were found no longer adequate. A larger office was opened soon afterward at 323 Pine Street, and a new switchboard of much more efficient type put in service as a means of cutting down the time it took to place and complete calls. This 'board, capable of caring for 3,500 subscribers, was of the multiple, single line type. In 1892 the company purchased the Mercantile Library Building at 216 Bush Street in the rear of the Pine Street telephone office. The two structures were joined by a bridge at the fourth and fifth floors, and a recently patented switchboard of revolutionary design placed in service in the Bush Street Building. This 'board was called the *express* type because it speeded up service immeasurably. Lines terminating at 323 Pine Street were gradually cut to the new office, until by 1896 the new board was handling all of the main office business, whereupon the old one was discontinued entirely.

The invention of the express type 'board was very fortunate, for up to this time practically all service had been given over grounded lines, the only customers using full metallic circuits being a few business firms that needed them for long distance communication. When electric lights came into more general use and a distribution of power became widespread, interference of electrical lines with telephonic transmission seriously threatened the life of this industry. It was here that the express 'board saved the day, for it eliminated the ground return that was causing all the trouble. The new invention eliminated the old-fashioned and troublesome magneto bell, or cranking operation, as a signalling device, and made possible talking by local battery current and signalling by common



*First Express' Board, main office, 1892*

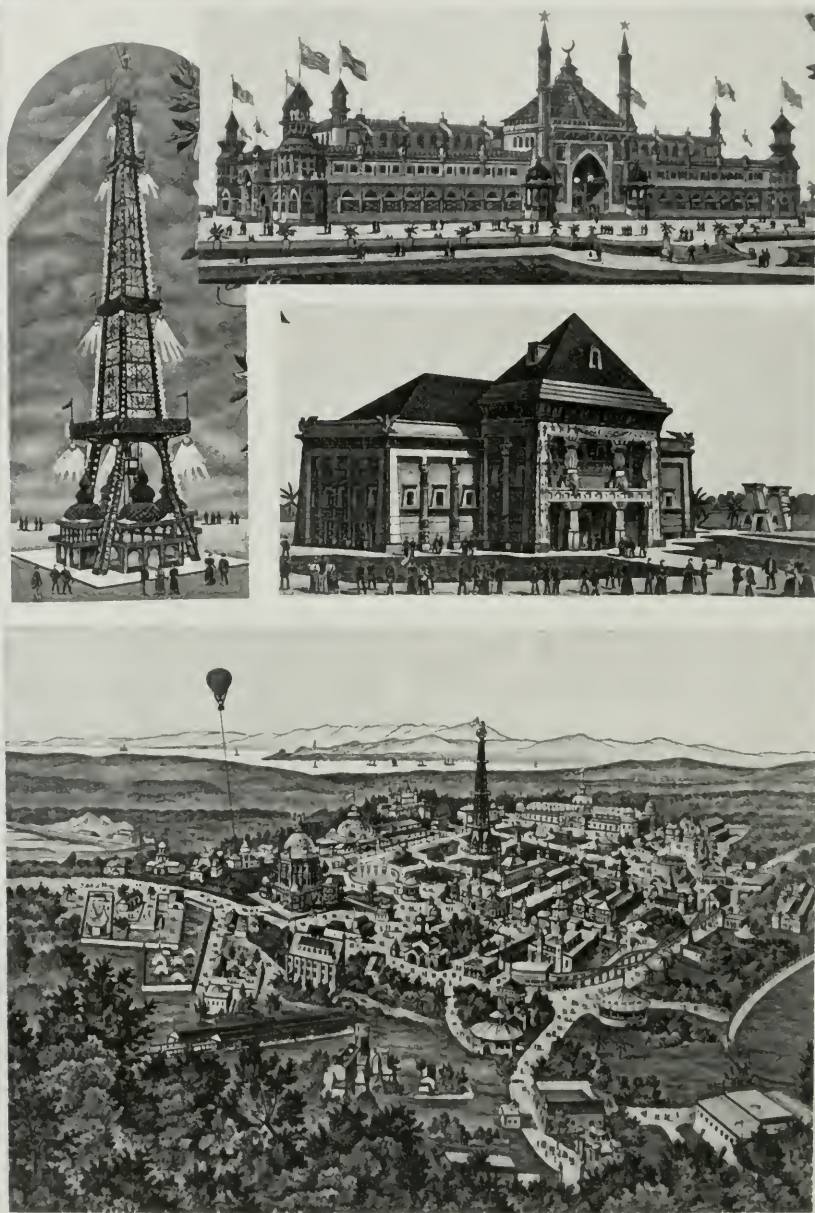
central office batteries. One of the principal difficulties of the telephone company was the rapidity with which its equipment became antiquated. Already vast sums had been expended in an endeavor to develop a more practical and flexible system to replace crude and inadequate equipment in use during the first decade of the industry's existence. A new and amazing improvement had hardly been adopted before another appeared to render it out of date.

In the early eighties, for instance, it became desirable to change from the Edison instrument then in use, to a Bell telephone with Blake transmitter. This necessitated removing every telephone in the city and installing a new instrument. Customers, knowing of the controversy as to which was the better instrument, often refused to make a change. In such cases it was necessary to rearrange the signalling device by installing a magneto bell.

The transition to the Blake transmitter had hardly been accomplished when the *Hunning Carbon Dust* transmitter was placed on the market. This instrument was superior to both Edison and Blake types and came to be known as a *long distance* telephone. It was followed by the White instrument, a combination of inventions by Bell, Edison and Berliner which gradually supplanted all other types. The White telephone is in many respects identical with the instrument in use today. The Pacific Bell Telephone Company was one of the first in the country to abandon the Le Clanche wet cell battery in favor of dry batteries for use with Blake and Hunning telephones.

The Pacific Bell Telephone Company was reincorporated as the *Pacific Telephone and Telegraph Company* in 1890. This name was retained until 1900, when it was changed to the *Pacific States Telephone and Telegraph Company*, at which time it took over companies known as the Oregon and Inland, organized several years before to operate in Oregon and Washington.

By 1890 Chinatown had acquired all the good and bad characteristics that have made it famous the world over, and in its prosperity this quaint city within a city could not have been expected to overlook the telephone as a medium for making neighborly calls and transacting business. A China telephone exchange was, therefore, established some time prior to 1890 (the exact date is unknown) at 742 Washington Street, in the office of a Chinese newspaper called *Mun Kee*. At first it was merely a pay station and remained one until 1890 when a small switchboard was installed. This



*Views of the Midwinter Fair, 1894*

switchboard served Chinese subscribers only, and was not connected to the main San Francisco exchange. It was moved in 1896 to the second floor of a building at the southwest corner of Grant Avenue and Washington Street, and connected to the rest of the San Francisco system. Later it was again transferred to the ground floor of 743 Washington Street where it remained until the time of the fire of 1906, after which the company erected on the same site a quaint and truly Oriental structure to house it. This little building is yet in service.

Prosperity again came to the city in 1893 as the result of the breaking up of large ranches in the rich inland valleys. Small farms were started and a large variety of agricultural products was produced for transportation to the east. In due time fruit was added to these exports. What was at first a small movement became in the end a great agricultural awakening, bringing money to San Francisco and consequent stimulation to her industries and businesses.<sup>1</sup>

The Midwinter Fair was held in 1894, a two-hundred-acre tract of sand dune land in Golden Gate Park having been reclaimed for the purpose by means of a public subscription of over three hundred thousand dollars. Exhibits were brought from the Columbian Exposition in Chicago, which had just closed, and many foreign countries took part. The attendance at the fair was severely cut down by railroad strikes and riots in 1894, but the enterprise gave the city advertising and publicity doubly needed at the time.<sup>1</sup>

With prosperity again on the up-grade, a campaign was begun to increase the number of telephones in San Francisco. Despite progress already made in the telephone industry, the instrument was looked upon by the general public as more or less of a plaything. The first move in the campaign was to educate people to the vital importance of the telephone in every-day life. To accomplish this purpose, four- and ten-party lines were introduced in 1894, over which service could be had for much less than the rates charged for single line service. The result of this innovation was a net gain of thirteen hundred stations in 1895, and of fourteen hundred in 1896.

The next step taken to extend the use of the telephone was the adoption in 1896 of the "kitchen telephone" plan, which may be briefly described as follows: It was found that many people were reluctant to pay out any appreciable amount of money for what they regarded as a luxury and plaything, so the company proposed to

<sup>1</sup>Young, J. P.: *History of San Francisco* (1912), Vol. II, pp. 728, 729.

install for the small charge of fifty cents a month an instrument which was to be known as a *kitchen telephone*. It was to provide one-way service only, and as the name indicates it was intended primarily for the use of the housewife in ordering supplies. It could be connected with any telephone in the city, but it had two very grave disadvantages—the instrument was not equipped with a bell, so it was impossible for the subscriber to be called from the outside; and there were always upwards of twenty telephones on a line, so that naturally the line was *busy* most of the time. The company officials reasoned that once a customer possessed a kitchen telephone and had learned to appreciate the value of one-way service, she would begin to desire the greater convenience and satisfaction of two-way service.

After the subscriber had enjoyed a two-way line for awhile it was believed that she would again grow impatient at finding the line always busy when she wanted to use it, and would therefore prefer to invest a dollar or so more each month for the privileges of a ten-party line. After that the step would be short to a full two-way, single party line at the regular rates.

As matters turned out, the telephone company's reasoning proved logical and the number of subscribers increased from 7,810 on January 1, 1897, to over eleven thousand one year later.

Before the introduction of party lines and for some time afterward, there were a few private telephone lines in existence in San Francisco, connecting factories and business places with their main offices. Very similar to these were the *two number* lines, which were virtually private lines, but could also be connected with the central office. A user could signal an operator by ringing twice.

These details of San Francisco's early telephone system are quite as interesting to inhabitants of long residence as any other feature of the city's growth, for the reason that every subscriber who aided the new system by his patronage by this time realizes the difficulties the company had to contend with in a period characterized by so many changes in fortune as was that of the seventies, eighties and nineties.

---

## CHAPTER XIII

### The Last of the Century

WHEN the Spanish-American War opened, San Francisco took on a martial air. The streets were thronged with men in khaki and blue. All eyes were turned toward the Pacific, on the other side of which a bitter conflict was being waged in a strange land by men many of whom had had their last glimpses of America when they sailed through the Golden Gate outward bound. A military camp was established in the district bounded by Golden Gate Park, stretching northward toward California Street, and west of Laurel Hill Cemetery. A city of tents covered a tract that since has come to be one of San Francisco's chief residential sections.<sup>1</sup>

The concentration of troops in the city, and the provisioning of transports, of course brought a measure of prosperity to farmers, and retail and wholesale dealers, for perishable food supplies to feed the men at arms were taken from the nearest sources. The principal benefit of the war to San Francisco became evident after it had closed, when it was found that a very profitable commerce had been fostered with the Philippines,<sup>1</sup> a trade that has grown consistently to be an important item in the city's great export activities.

Throughout the war years—in fact, from 1897 to 1906—railroads having their terminals at San Francisco promoted a tourist movement toward California by arranging a series of excursions from the east at low rates as a means of advertising the city and state and of recruiting settlers by first hand methods. This practice in time attracted conventions to the city,<sup>2</sup> and the transient population increased, making San Francisco more than ever a hotel center. Many visitors either stayed in California or were so taken with the country that they returned later to establish their residences.

Before two years of the new century had passed, business depression had completely disappeared. Bank clearings were double

<sup>1</sup>Young, J. P.: *History of San Francisco* (1912) Vol. II, pp. 727, 728.

<sup>2</sup>*Ibid.*: Vol. II, p. 774.

those of 1894; and in 1903 they were even larger. Savings deposits showed remarkable gains clearly demonstrating that the condition of labor had improved; that it was no longer suffering from low wages and inactivity.<sup>1</sup>

Building operations were, until 1906, not confined to any particular part or parts of the city. Houses and business structures sprang up everywhere.<sup>1</sup> The telephone company found itself faced with the problem of expanding its system intelligently in advance of this growth, in order that demands for service might be satisfied. The telephone had by this time ceased to be regarded as a luxury and was looked upon as a commercial, industrial and social asset.

One of the most remarkable achievements in electrical communication came in 1903, when the Postal Telegraph Company opened a Trans-Pacific cable to the Philippines, with extensions to Asia.<sup>1</sup> Rates for service over this line were reasonable and its value in Oriental-Occidental trade cannot be over-emphasized.

It is intended that the brief outline given above of highlights in San Francisco's development should give a mental picture of the city immediately prior to the fire. The paragraphs of purposely diversified subjects have, for the most part, a bearing on telephone development, for of all periods since the gold days, this seemed to be the time when San Francisco found herself on the highroad to prosperity of a lasting nature.

As the telephone company expanded and the number of instruments in service increased, additional central offices were established in many parts of the city. By 1906 there were eight central offices in operation; and as each was placed in service, it was assigned a certain range of numbers. For example, *Two-office* was entrusted with the two-thousand numbers in the directory; *Three-office* the three-thousand numbers, and so on. Eventually, however, each office exceeded its range, and it was then that prefixes were adopted in designating telephone numbers.

When one thinks of a telephone subscriber he naturally pictures a person who has subscribed to the service to meet his regularly recurring requirements. There was and continues to be a large body of telephone users who either have not subscribed to the service or find it most convenient and more economical to use coin box telephones or *pay stations* which were, prior to 1902, equipped with a type of coin box that did not require payment in advance for a call.

<sup>1</sup>Young, J. P.: *History of San Francisco* (1912), Vol. II, pp. 726, 766, 775.

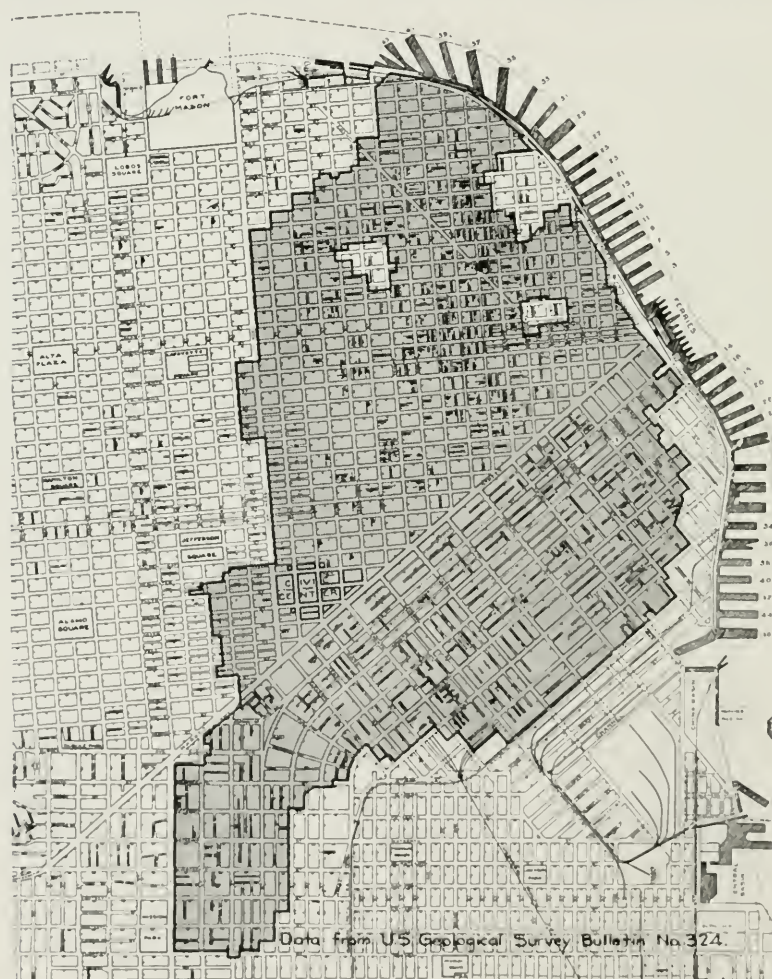
The operator first rang the number called for, then notified the calling party to deposit a nickel, after which the call was completed. This system, it was found, required too much of the operators' time and attention, and it often happened that one party or the other would hang up before connections were made. Another point against this make of coin box was the fact that a telephone user could, if he were so inclined, deceive the operator by tapping the coin box or running a comb across it to simulate the effect of a nickel deposited. An argument between the operator and patron would ensue and perhaps, before this would be over, the called person would hang up. For these reasons, the *pay back* coin box was substituted about 1902. With this type the customer deposits his nickel first; the call is then completed in the usual manner. If the party called is not secured, the operator returns the nickel. Some difficulty was encountered in persuading the public to accept this innovation, as people objected to paying in advance for their calls, and were afraid of not getting their money back if calls were not completed. Here again, education or gradual training was necessary and eventually the pay-back box came to be accepted as a matter of course.

In the thirty years that had passed since 1876, the telephone had become a public utility of the greatest importance in San Francisco. The telephone system of lines and central offices had united comparatively isolated residential districts with the city proper; rather remote industrial areas were brought into communication with the financial and office districts, buyers with sellers, shippers with consignees, at inestimable savings in time and money. The telephone company was forced to solve many problems, many of which were brought upon it by circumstances incident to the natural ramifications of a new invention, an infant system and a young city. By 1905 there were fifty thousand telephones used by San Francisco's population of four hundred thousand.

It must not be imagined that this remarkable growth had obliterated all traces of the romantic and unusual from the telephone's chapter in San Francisco history. By way of diversion, let us recall a well known resort known as the Art Saloon which reached the height of its popularity just before the fire. In this saloon there was some kind of a mechanical music reproducer, on the order of an orchestrion or mechanical piano. Now obviously, it was not possible for all members of a household to pay a visit to the Art Saloon, so arrangements were made with the telephone company whereby a

customer could request an operator to connect his telephone with the saloon line. The connection being made, the customer could sit at home and listen to the music as long as he chose, over the telephone. Very similar, one might say, to the use of telephone lines in radio broadcasting today, except that the audience then was more limited.

With the population of the city and its environs increasing phenomenally, the telephone company foresaw as inevitable an increased demand for its service and prepared for it by erecting a new building at 445 Bush Street. Here a switchboard of the very latest type, costing one hundred thousand dollars, was installed and was about ready to be cut into service *when something happened*.



Map showing devastated area, San Francisco fire, 1906

---

## CHAPTER XIV

### The Earthquake and Fire

“THE old San Francisco is dead. The gayest, light-hearted, most pleasure loving city of the western continent, and in many ways the most interesting and romantic, is a horde of refugees living among ruins. It may rebuild; it probably will; but those who have known that peculiar city by the Golden Gate, and have caught its flavor of the Arabian Nights, feel that it can never be the same. It is as though a pretty, frivolous woman had passed through a great tragedy. She survives, but she is sobered and different. If it rises out of the ashes, it must be a modern city, much like other cities and without its old atmosphere.”<sup>1</sup>

The story of the San Francisco earthquake and fire of 1906, one of the world's most famous disasters, is too well known to require detailed description. At fifteen minutes after five o'clock on the morning of April 18th, the first shock occurred, awakening inhabitants of the city and driving them to the streets. Buildings toppled; cracks opened under foot; water mains burst; street cars ceased to run; telephone and electric light service failed. Small fires sprang up in many quarters, spread, united, and rolled over the defenseless city. Like minute-men responding to a call to arms, the man-power of the community assembled to repel the invader. Soldiers appeared, Red Cross stations and bread lines were established, and a long, gruelling battle to save San Francisco was on.

The ensuing conflagration swept over twenty-six hundred acres, or about four hundred and ninety blocks, destroying four square miles of closely built properties.<sup>2</sup> Eighty million gallons of water were made unavailable by breaks in water mains<sup>3</sup> and the consequent property losses amounted to five hundred million dollars, about one-half of which was covered by insurance.<sup>4</sup> Earthquake

<sup>1</sup> Irwin, Will H.: *The City That Was*, New York *Sun*, April 21, 1906 (Huebsch Edition 1907), pp. 7, 8.

<sup>2</sup> Eldredge, Z. S.: *History of California* (1915), Vol. IV, p. 514.; San Francisco Chamber of Commerce Handbook (1914), pp. 16, 17, 18.

<sup>3</sup> Eldredge, Z. S.: *History of San Francisco* (1915), Vol. V, p. 507.

<sup>4</sup> *Ibid.*: Vol. V, p. 514.



*Devastation, San Francisco fire, 1906*

damage amounted to from three to ten per cent of the total loss;<sup>1</sup> for buildings of proper construction on solid foundations suffered but little. Structures of inferior materials on filled ground, toppled like houses of cards.

Records show that for the first few days 250,000 of the city's population of 440,000 were made homeless by the disaster. Three hundred and fifty thousand people were dependent upon bread lines for sustenance.<sup>2</sup> The railroads carried two hundred thousand refugees out of town;<sup>3</sup> seventy-five thousand of these moved to Oakland and other neighboring cities. One hundred thousand people, remaining in the city, camped out in parks and other open spaces away from danger.<sup>4</sup>

"There was no excitement, no terror, no hysteria, notwithstanding wild press dispatches sent out and the wonderful tales of travelers."<sup>5</sup> The entire nation and world came to the city's assistance and it was not long before fifteen million dollars' worth of relief supplies were shipped in for distribution.<sup>6</sup>

Subsequent accounts of the disaster have given little space to the destruction of the city's communication systems. San Franciscans found, when the fire burned itself out, just how indispensable the telephone was in their lives. The progress of the fire can be accurately traced through the repeated destruction of telephone company property.

The first telephone building to fall before the flames was the new Executive Building at 140 New Montgomery Street, which had been occupied but a scant three months. By seven o'clock on the first morning of the fire it became evident that the structure was doomed.

As night drew on, the fire dragon, gaining strength from what it fed upon, swept nearer and nearer to the New Main office, and at two o'clock the following morning that building, with its costly new switchboard which was to have been cut into service in a few days, fell prey to the flames. The building was not destroyed, but the interior was completely gutted.

The telephone company, forced to abandon 445 Bush Street, established new headquarters at East office, 827 Hyde Street.

<sup>1</sup>Eldredge, Z. S.: *History of San Francisco* (1915), Vol. V, p. 506.

<sup>2</sup>*Ibid.*: Vol. V, p. 508, 514.

<sup>3</sup>Chamber of Commerce Handbook (1914), pp. 16, 17, 18.

<sup>4</sup>Eldredge, Z. S.: *History of San Francisco* (1915), Vol. V, p. 515.

<sup>5</sup>*Ibid.*: Vol. V, p. 508.

<sup>6</sup>*Ibid.*: Vol. V, p. 515.

Even there but a brief respite was gained. By noon of the second day it became necessary to evacuate that building also, and fall back to West office, at the corner of Pine and Steiner streets. East office and with it another new switchboard, which had been in operation less than a year, burned during the afternoon.

The fire on the third day jumped Van Ness Avenue in several places, and it seemed for a time that West office too, would go with the remainder of the city. At this juncture, West office, Park office and the one in Butchertown alone remained. Park office had been so badly shaken by the earthquake that it was dangerous to enter the building. Main office at 216 Bush Street, with its great switchboard serving 20,000 stations in the business district, had burned to the ground at midnight on the first day. New South office, which was to have been cut into the system in a few days, was practically demolished. Old South office, old Mission office, and the Chinatown exchange were heaps of ruins.

Just as it seemed inevitable that West office would be destroyed, the flames were brought under control. The width of Van Ness Avenue was too much for the fire dragon. Little by little it was subdued, until on the fourth day of the fight, man triumphed, and the western portion of San Francisco was saved.

It was a dismal day for the telephone company. Practically every improvement the company had made or had under way, to meet the needs of the growing city, was wiped out by the fire. Five years' labor had been undone in four days. Of 50,000 telephones in operation before the catastrophe, not one was in working order after the fire began. The extent of damage to aerial and underground plant could only be guessed at as yet, but it was certain to be great.

The outlook was discouraging, but the telephone company set to work immediately to provide some sort of emergency service for the remaining portion of the city, and to make plans for a greater and better telephone system to take the place of the one destroyed. The first weeks and months after the fire were strenuous ones. Men worked night and day, often without sufficient food and water. Fires were forbidden by city ordinances and there was neither gas nor electricity for artificial light. Tasks were accomplished at night by lantern or candle light. Workmen became separated from their foremen and were constantly being impressed into service by soldiers to help clear the streets, a duty from which they could not escape until the foremen found and identified them.

West was the only central office in operating condition after the fire, except the office at Butchertown which was too far removed from the heart of the city to be of much value. West became therefore, the nucleus of an emergency telephone system and in fact continued for several months to serve the business district that grew up along Van Ness Avenue and Fillmore Street. To it were connected all lines from the unburned western portion of the city, and all toll and emergency lines that could be gathered in. The West office equipment was of common battery type and fortunately the batteries were of sufficient capacity to last until three small gasoline charging sets were received from Los Angeles, Sacramento and Portland.

As soon as it was possible to enter the burned district, a telephone line was run down Bush and Market streets to the Ferry Building and connected with a submarine cable to Oakland. This was entirely an emergency line. It was strung over piles of debris, along the few walls that were still standing, in cable slots of the street railway and at some points, merely dropped along the pavement. The line was patrolled constantly, for it was frequently broken by wagon-wheels, or burned by hot embers falling from smouldering ruins. Simultaneously with the establishment of this make-shift line, wires were run from West office and connected with toll lines to Sausalito, Fort Point, Lime Point, and the Presidio.

Toll lines from Los Angeles and way points were connected with West office by wires strung over houses, stores, fences, poles or whatever supports could be found, and communication with the southern portion of the state was resumed. Telephone lines were provided for the water works, directly connecting the different reservoirs together without passing through a switchboard.<sup>1</sup>

An examination of underground cable revealed that while the laterals were practically total losses, the main leads were in almost perfect condition, except at the point where they had entered the Main office at 216 Bush Street, and at one or two man-holes where lead sheaths had melted. The underground trunk from West to Main office was joined to one from Main office to the Ferry by shunting a new piece of cable around the damaged part, at a point in front of the Bush Street Building. This, too, was a temporary arrangement, for the cable was laid along the ground. The move however, provided more efficient service between the western

<sup>1</sup>The Pacific Telephone Magazine, April, 1911

## Telephone Directory of April 28, 1906

The last telephone directory of this Company for the telephones of the Bay Districts included for San Francisco 80,001. In this connection the first telephone directory printed after the fire of 1906, under date of April 28th of that year, is herewith reproduced in full. The contrast between these two directories is its own commentary on the wonderful growth and development of the San Francisco exchange in the period since the disaster.

# Pacific States Telephone and Telegraph Co. SAN FRANCISCO, APRIL 28, 1906 Telephone Directory

West 915	Board of Public Works.....	Steiner and Ellis
West 956	Call Office.....	1651 Fillmore
West 947	Chronicle Business Office.....	1804 Fillmore
West 974	Chronicle Editorial Office.....	1813 Fillmore
West 901	Citizens' Committee.....	Franklin Hall, Bush and Fillmore
West 917	Calif. Gas and Elect. Corp.....	Haight and Fillmore
West 960	Examiner Office.....	1853 Fillmore
West 912	Fire Alarm Office.....	2034 Steiner
West 918	Fire Department.....	847 Fillmore
West 922	Fort Mason.....	
West 901	Franklin Hall.....	Bush and Fillmore
West 925	Hewitt, W. R. (Dept. of Electricity).....	Res. 3008 Sacramento
West 926	Military Hospital.....	2118 Pacific Ave.
West 930	Merchants' Exchange.....	California, nr. Montgomery
West 944	Mission Relief Committee, Secy's Office.....	25th and Guerrero
West 944	Mission Relief Committee (Hospital)	Horace Mann School, 22nd and Valencia
West 906	Noe Valley School.....	24th and Douglass
West 921	Presidio .....	
West 901	Relief Committee (General).....	Franklin Hall, Bush and Fillmore
West 933	Relief Committee (Warehouse).....	Page and Gough
West 902	Red Cross Relief Assoc.....	Grant School, Pacific nr. Broderick
West 967	Red Cross Relief Assoc.....	Golf Club Bldg., 1st Ave. nr. Presidio
West 961	Spring Valley Water Co.....	Devisadero and Waller
West 946	St. Francis Hospital.....	584 Page
West 946	Southern Pacific Hospital.....	584 Page
West 905	Stow Lake .....	Golden Gate Park
West 908	United Railroads .....	Turk and Fillmore
West 945	United Railroads .....	11th and Bryant
West 909	Water Committee.....	1819 Fillmore
West 906	Young Men's Hebrew Association .....	

*The first directory after the fire of 1906*

section of San Francisco and East Bay cities than did the single line down Bush and Market streets. The West-to-Main cable contained 120 wires, and the one from Main to the waterfront only 100; 20 pairs of wires were therefore left available for connecting hospitals, city offices, relief stations and other public service agencies to West office switchboard.

The underground cable named served as the backbone for a new telephone system, for it was an easy matter to tap into it at any point along the route followed. Wires were in this way run to new buildings as they sprang up in the downtown district—an arrangement that served very well until more permanent equipment could be installed.

The first telephone directory, issued just seven days after the fire, was in card form and bore but thirty names. It was printed for use in connection with relief work, and listed only hospitals, relief and Red Cross committees, newspapers, and various offices of the city government.<sup>1</sup> Less than a month after the disaster a directory containing 2880 names was issued<sup>1</sup> and stands as proof of the efficient work the telephone company had done in rehabilitating its system. Two months after the fire there were about nine thousand instruments in service in the city; three months after, ten thousand; six months, eighteen thousand; and by the end of the year, the number had jumped to nearly twenty-nine thousand.<sup>1</sup>

The rebuilding of San Francisco's telephone system was greatly facilitated by the promptness with which orders for equipment were filled by eastern electrical supply houses, for requisitions from the convalescent city were given precedence over all others and production was speeded up to meet the demand. Even before new equipment was received from the East, old apparatus of all kinds for temporary use was imported from surrounding towns and from the company's Washington and Oregon territories. A great deal of valuable material was obtained from the Western Electric Company's San Francisco branch, for its building had escaped the fire.

Before the walls of the gutted 445 Bush Street building had cooled, men were at work night and day rebuilding its interior and constructing a temporary switchboard. This 'board was placed in operation on May 20th, one month after the fire—a remarkable record under any conditions. As matters stood many parts of the switchboard had to be made by hand. When opened this equip-

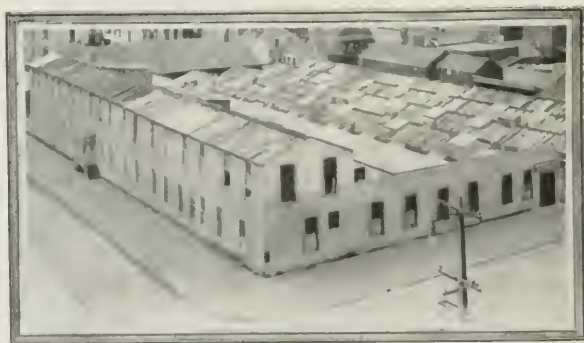
<sup>1</sup>The Pacific Telephone Magazine, December, 1907.

ment had a capacity of 285 telephones. On the same day, May 20th, Market office was re-opened, and Park office followed less than a month later.

The first executive offices established after the fire were located in a small house next door to West office, in Steiner Street. The various departments of the company were scattered over such a wide area that it was very difficult for them to keep in touch with one another, and much time was lost in transacting inter-departmental business. In order to remedy this bad feature, a large corrugated iron shed was erected on a lot at the corner of Fell and Scott streets. In June the company took up its quarters there, except a few departments, such as the engineering and accounting, which continued to occupy separate offices in the neighborhood.

The *chicken-house*, as it was commonly called, served well enough as a make-shift shelter, but owing to the fact that the roof leaked when it rained and that it became unbearably hot under this iron canopy when it didn't rain, better accommodations were secured elsewhere as soon as possible. The executive offices were moved after about a year to the Shreve Building, at the corner of Post and Grant Avenue. Quarters occupied in this structure remained the headquarters of the executive offices until the completion of the new building at 140 New Montgomery in 1925.

So reads the story of the telephone company's first efforts in re-building its San Francisco system. The task of re-creating the city was accomplished in due time, but that of providing for constantly increasing demands for telephone service never ceases. It is in the remarkable achievements of the next two decades that we are now interested.



*The "Chicken House", Scott and Fell streets, headquarters for twelve years after the fire*

---

## CHAPTER XV

### Rehabilitation

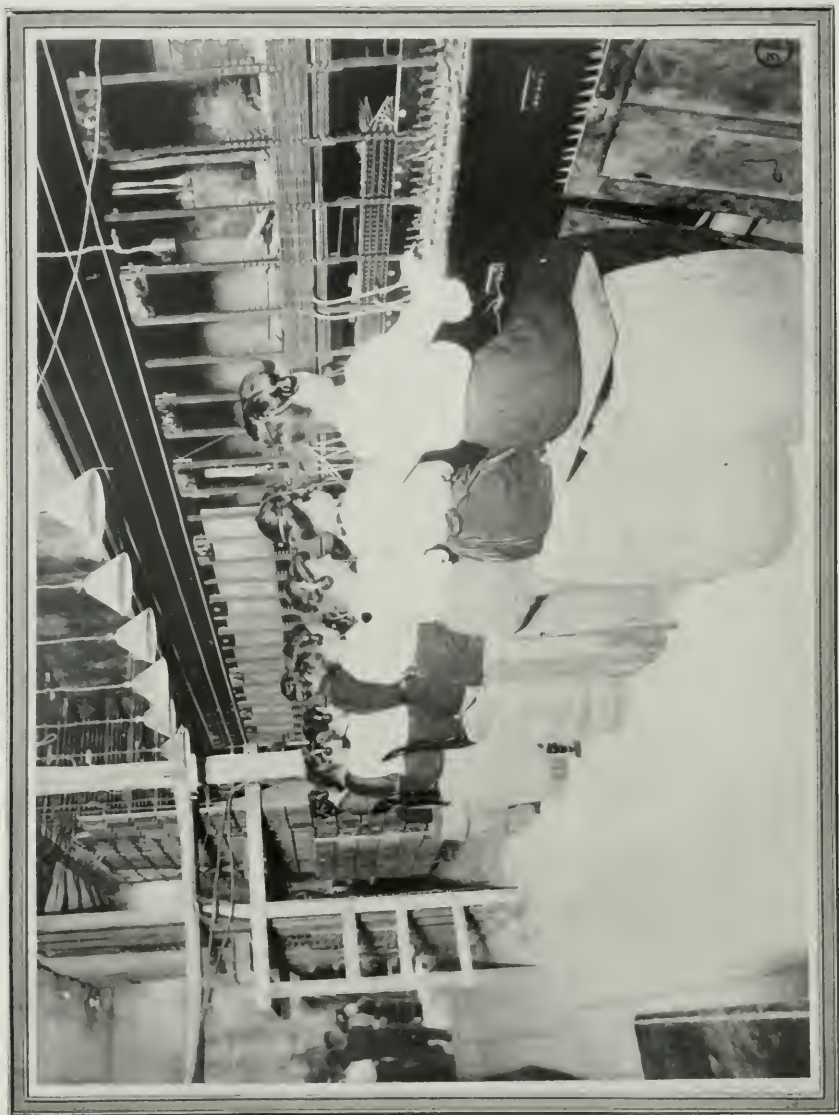
WITH every downtown commercial establishment destroyed, merchants looked to unscathed sections of the city for new quarters. Fillmore and Divisadero streets were favored, partly for the reason that they had been used in a small way for business purposes previously, and partly because the Market Street Railway soon had its lines in operation on both thoroughfares.<sup>1</sup> What had been dingy little shops were soon camouflaged as pretentious stores by the use of plate glass, false fronts and other emergency tricks of the architectural craft. Indeed, such success was attained that there were those who believed that San Francisco's main retail business area would stay permanently on Fillmore.<sup>1</sup>

Theaters were built on lateral streets, and blocks on either side of Fillmore Street, between Post and Golden Gate Avenue were lined with more or less pretentious restaurants. For a time the leading after-theater resort was situated at the corner of Eddy and Fillmore. The New Orpheum and Alcazar theaters located in the district were more nearly fireproof than any local playhouses previously constructed.<sup>1</sup>

This booming new business district was, however, not without rivals. Mission Street before long entered the field with large scale operations. Old stores were transformed, restaurants opened, a splendid theater built in Valencia Street, and a strong bid made for the city's principal retail shopping district.<sup>1</sup> The success of this venture as well as that of Fillmore was lessened greatly by a general migration of the leading retail stores to the west side of Van Ness Avenue, which had been left untouched by the fire. Pretentious residences were converted to commercial uses, and it was not long before the avenue became the leading shopping center and fashionable promenade.<sup>1</sup>

Financial and cognate interests moved with less celerity. For

<sup>1</sup>Young, J. P.: *History of San Francisco* (1912), Vol. II, pp. 861, 862, 863, 864.



*First Multiple Board in San Francisco, after the fire, 1906*

several months banks, insurance companies, agencies and corporation offices were widely scattered, many finding quarters in residences, the owners of which, tempted by high rents, had vacated and moved across the bay.<sup>1</sup>

Officials in charge of rehabilitation work believed that freedom of action was essential in speeding up reconstruction and allowed property owners to build flimsy shacks in the burned downtown area, thinking of course that more substantial structures would be put up as soon as materials and men were available. The theory did not work out favorably in some cases, for these eyesores were kept in service for many years after the emergency had passed.<sup>1</sup> The rapidity with which permanent buildings were erected in what had been formerly the heart of the city, early indicated that it was recognized this was the logical site for commercial operations because of its propinquity to the harbor. The wharves of the waterfront had escaped destruction, and shipping could therefore go on as before.<sup>1</sup> The opportunism responsible for Fillmore, Divisadero and Mission growth,<sup>1</sup> in the end, went down before essential factors responsible for the pre-fire arrangement of San Francisco's commercial district.

With scores of construction operations going forward simultaneously, the demand for skilled and unskilled labor was exceptional. High wages were a natural outcome, bringing with them high prices.<sup>1</sup> The conditions of workingmen improved and they moved in large numbers to outlying sections of the city where land was cheaper. Many were forced to move from undestroyed areas because of the high rents their quarters came to command.<sup>1</sup> They were not alone in the exodus however, for many persons of comfortable means found it necessary or desirable to move to new tracts farther out, because of a demand for more centrally situated properties for business purposes.<sup>1</sup> Thus there were two forces at work in the making of new San Francisco; the centripetal tendencies of business, guided by factors of known value; and the centrifugal movement of population, made possible by improved transportation facilities.

These varied activities went on from 1906 to 1909 without interruption. A detailed enumeration of their ramifications would however, take unwarranted space and in closing the subject, it is interesting to point out the start of one of San Francisco's distinguishing characteristics—her apartment house development.

A tendency toward apartment houses had been shown before

<sup>1</sup>Young, J. P.: *History of San Francisco* (1912), Vol. II, pp. 863, 864, 862-904.



*China Office, 745 Washington Street*

1906 by San Franciscans and afterward, due to an increasing scarcity of servants and a natural desire to live near the center of town, they became popular.<sup>1</sup> Apartment houses were constructed principally on the south side of Nob Hill, in Pine and Bush streets. Development of this nature in Sutter Street was slower than in streets north and south of it, west of Powell Street, because the price of property in Sutter was very high and precluded building small or cheap structures. It should not be imagined that apartment houses were built only in the area described, for there were many scattered over the city in locations favorable to their purpose.<sup>1</sup>

As a result of the fire San Francisco lost about one hundred thousand of her population permanently. Most of these were the gain of Oakland and other neighboring cities. Locally the population movement was marked, as has been said, by movement of approximately sixty-six thousand people from the inner city to the suburbs. From a social and sanitation standpoint this was a good thing, for it prevented the establishment of tenement districts in downtown sectors, such as have been the bane of eastern community development.<sup>2</sup>

Minor but nevertheless interesting events took place in movements of the foreign elements in San Francisco's population. The Chinese, as might have been expected, set to work immediately to build up their ruined properties. Although the more well-to-do Oriental merchants saw fit to erect buildings conforming more or less to their architectural traditions, others constructed quarters of less spectacular design. As a result Chinatown today differs radically from that of old San Francisco. It is more sanitary, but less picturesque.<sup>3</sup>

The Japanese on the other hand, left the vicinity of Chinatown and either bought or rented property west of Van Ness Avenue, for the most part, on or in the vicinity of Sutter Street.<sup>3</sup>

Latin races, primarily Italians, continued to congregate in North Beach, along Broadway and on the slopes of Telegraph Hill. The southern extremity of their colony touches that of the northern boundary of Chinatown, the two blending quite picturesquely and startlingly.

The repeated shifting of business and residential districts; the

<sup>1</sup>Young, J. P.: *History of San Francisco* (1912), Vol. II, pp. 903, 904.

<sup>2</sup>Arnold, Bion J.: *Report on the Improvements and Development of the Transportation Facilities of San Francisco* (1913), p. 16.

<sup>3</sup>Young, J. P.: *History of San Francisco* (1912) Vol. II, p. 903.

scattering of the population to outlying sections; the growth of apartment house areas with an intense concentration of thousands of people, and the expansion of commercial territory, necessarily made the problem of telephone construction after the fire a diverse and rather baffling affair. To weave together a city totally different physically from that previous to 1906, and to provide service for temporarily located businesses and residences, required great ingenuity on the part of telephone company engineers, if efficient telephone service was to be made possible and maintained.

The first event of importance in the life of the telephone company after the fire was its reorganization in 1907, at which time it took over all holdings of the Sunset Telephone Company not already under its control. The name was changed from Pacific States Telephone and Telegraph Company to *The Pacific Telephone and Telegraph Company*. Five years later the Home Telephone Company was purchased. This was a small local organization that had been formed in 1907 to operate in competition to the Pacific Company. Two distinct telephone companies in the same city, with separate lines, different directories, and non-connecting service proved so awkward and unsatisfactory that the people wearied of the arrangement and began to demand a single telephone service. The question was settled by The Pacific Telephone and Telegraph Company buying the Home Company's entire plant in 1912.

In the meantime, construction had been progressing in several exchanges that had to be rebuilt after the fire. In December, 1907, temporary switchboards in Kearny office were replaced with permanent 'boards and normal service resumed. Later, Pacific and Mission offices were added to the system and in August, 1909, the new China exchange, housed by a structure built in conformity with pure Chinese architectural traditions, was opened on the site of the old China office in Washington Street.<sup>1</sup> The China office building was constructed with three roofs and inevitable balconies. The interior was finished with rough-cut woodwork and ebony. The walls were panelled with glazed tile, decorated with highly colored frescoes. This office, with a Chinese manager and operators, was given a true Oriental atmosphere. It immediately became and still remains one of the show places of San Francisco.

<sup>1</sup>The Pacific Telephone Magazine, April, 1910.



## CHAPTER XVI

### General Development

**B**EFORE the fire San Franciscans had always been inordinately fond of celebrations, parades and general festivities. Although this tendency has been less marked in later years of the city's history, it flared up markedly in 1908, when a fleet of 49 naval vessels steamed through the Golden Gate under the command of Admiral Evans. The fleet lay at anchor in the harbor from May 6th to 18th, and during that time officers and sailors alike joined with the populace in the first genuine revel held since the city had started to rebuild.<sup>1</sup>

The Portola festival, celebrating the discovery of the bay by Don Gaspar de Portola, was held in October, 1909, and was attended by approximately five hundred thousand visitors. The observance was financed by a popular subscription of about one hundred and fifty thousand dollars.<sup>1</sup>

These celebrations are cited as being fairly plausible reasons for the exceptional accommodations provided by 1912 for a large transient population. In that year there were according to an actual count 291 apartment houses, with 15,000 rooms; 516 hotels and 438 restaurants.<sup>1</sup> The hotel and amusement centers had moved but a few blocks since the sixties, and were located much as they are today in the vicinity of Powell, Market and O'Farrell Streets.<sup>1</sup>

The evacuation of Van Ness Avenue by retail stores began in 1910 and by 1912 that thoroughfare was practically deserted. It had been spoiled for residential purposes and soon exhibited a tendency toward becoming a great automobile center, with some apartment house development<sup>2</sup>. This change relieved the telephone company's West office of the heavy load it had been carrying since 1906.<sup>3</sup>

Sunset office was opened in 1912 to serve a great new residential tract south of Golden Gate Park, which had become popular with home builders. When new residential tracts were laid out in the vi-

<sup>1</sup>Young, J. P.: *History of San Francisco* (1912), Vol. II, pp. 912, 913, 906, 907.

<sup>2</sup>*Ibid.*: Vol. II, pp. 909-919.

<sup>3</sup>The Pacific Telephone Magazine, April, 1910.



*Group of company buildings, San Francisco, 1912*

cinity of hills bordering the city on the west particular attention was paid to topography, and streets were made to conform to and follow the landscape. This brought new problems in telephone construction, for the old rectangular block scheme was completely discarded. This was particularly true of the region south of Golden Gate Park near and in Sutro Forest, which was being rapidly thinned out in places to make available saleable lots.<sup>1</sup>

The telephone has been particularly valuable in this centrifugal movement of population through making rather isolated communities within the city part and parcel with the whole, through the medium of quick communication facilities. The communities mentioned were brought into being by the rugged topography of the city. A few of these are Hayes Valley, Noe Valley, Eureka Valley, Pope Valley, Happy Valley, Harbor View, Visitacion Valley, San Miguel Valley, etc.<sup>2</sup> To connect them with central offices an enormous amount of telephone construction work of a varied nature was necessary.

Mixed requirements for business and residence telephones was shown in 1912, through the development of retail business districts in Fillmore Street, Mission Street, North Beach, Divisadero Street, Clement Avenue, in the Richmond District, Polk Street, Hayes Street, in Hayes Valley, Haight Street, etc.<sup>3</sup> The more or less isolated character of these areas was to be alleviated from a transportation standpoint within a few years by building street car lines where they had not already existed.

There were in San Francisco in 1912 over one hundred thousand telephones in service, or about one to every six inhabitants.<sup>4</sup> A new telephone development in 1910 greatly surprised company officials. This was a demand for private branch exchanges in dwelling houses. In one home a private exchange of 26 telephones was installed, and in another one of 22.<sup>5</sup> In 1914 a new private branch exchange was installed in the St. Francis Hotel having an ultimate capacity of 1,500 instruments. This was the first hostelry in the city to place its telephone switchboard in a part of the building far removed from the lobby.<sup>5</sup> Other large exchanges of a similar nature were placed in the Emporium and at the Southern Pacific Railroad offices.

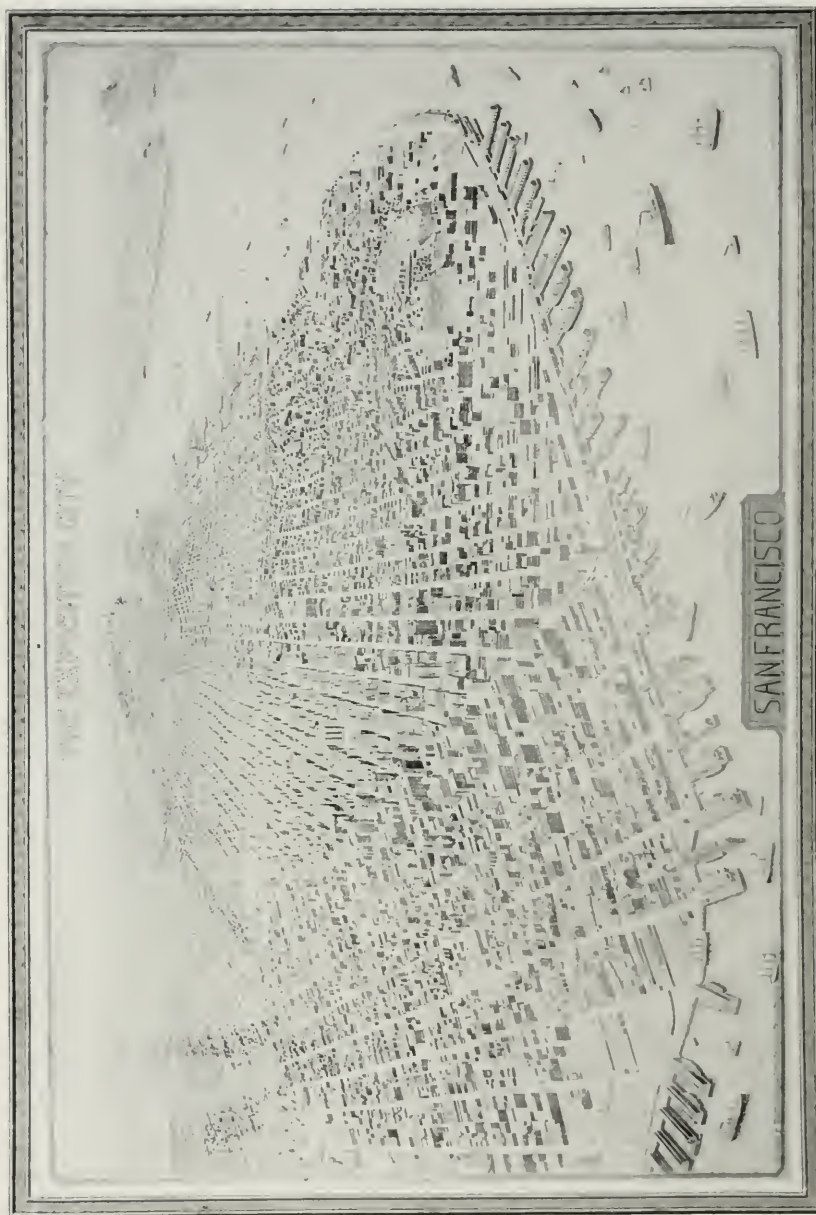
<sup>1</sup>Young, J. P.: *History of San Francisco* (1912) Vol. II, pp. 909-919.

<sup>2</sup>Arnold, Bion J.: *Report on the Improvement and Development of the Transportation Facilities of San Francisco* (1913), p. 6.

<sup>3</sup>Young, J. P.: *History of San Francisco* (1912) Vol. II, p. 919.

<sup>4</sup>The Pacific Telephone Magazine, May, 1912.

<sup>5</sup>*Ibid.*: April, 1914.



Courtesy Traug Label & Litho Co.

*The Exposition City of 1915*

The downtown business district was fairly well built up by 1912. The shopping area was bounded by Kearny, Powell, Market and Sutter streets.<sup>1</sup> At this time there were 266 office buildings of from six to seventeen floors, and about twenty thousand rooms in service. There were some people who thought that office structures were being put up too rapidly and numerous, but the movement can be really accounted for by, and attributed to, a singular spirit of confidence in the future that had marked San Francisco's general rehabilitation.<sup>1</sup>

Despite magnificent achievements in San Francisco since the fire, it may be said that the city was greatly handicapped in proper development by lack of appreciation of the problems of the future and a failure on the part of some utilities to keep pace with growth in the past. This is said to have especially concerned transportation facilities, which must precede settlement. Here again topography threw effective obstacles in the way of development.<sup>2</sup>

By 1913 the loss of population following the earthquake and fire had been more than made up.<sup>2</sup> The exodus to transbay communities had practically ceased. Growth during the intervening years was more rapid than ever before in the city's history.<sup>2</sup> Regardless of this fact, at least one-third of the city area was unpopulated, due to lack of water and railway facilities, particularly in southerly districts.<sup>2</sup> San Francisco was, at this juncture in particular, a business and social center, as opposed to a residential community. But it was growing in 1913 faster than during the five years before the fire, or at the rate of about one hundred and forty-five thousand in a decade. In 1913 the city's population amounted to about four hundred and fifty thousand.<sup>2</sup> San Francisco and its commuter districts had a total of seven hundred and thirty thousand persons, an increase of 48 per cent in a decade.<sup>2</sup> This population, which swelled with the beginning of each business day and decreased with its close, brought unprecedented demands for telephone service. When it is considered that the population of the city immediately after the fire was the same as in 1902<sup>2</sup> and increased to the 1913 figure in seven years, the telephone record of 1912 may be appreciated, especially when the fact that an entirely new system had to be built is taken into account.

San Francisco industries had recovered by 1910, and commercial

<sup>1</sup>Young, J. P.: *History of San Francisco* (1912), Vol. 11, pp. 909-935.

<sup>2</sup>Arnold, Bion J.: *Report on the Improvement and Development of the Transportation Facilities of San Francisco* (1913), pp. 15, 16, 17, 20, 21-28.

operations exceeded those of 1905. Manufacturing within the regular industrial district alone failed to keep pace with city growth. The East Bay gained in this regard, where San Francisco lost.<sup>1</sup>

It has been estimated that in 1913 street railways were six years behind the necessities of population growth in track mileage, which was the same as before the fire, due to an abandonment of lines. The fifteen previous years had shown slower development from a railway standpoint than ever before. From 1868 to the time of the Market Street Railway Company consolidation in 1893, track mileage was extended at a rate of 8.1 miles a year; and during a maximum period at the rate of 16 miles a year. After consolidation the rate of growth was 3.6 a year. In 1911 all street car companies had a total of 676 cars.<sup>2</sup>

San Francisco established the first municipally-owned street railway system in the United States and the second in the world (the first was at Glasgow, Scotland) by voting a preliminary bond issue of \$2,000,000 in 1909,<sup>3</sup> and an additional bond issue of \$3,500,000 in 1913. The Geary Street line, which was the first, began operating in December, 1912, and the following June cars were run from the Ferry to the Beach.<sup>3</sup> In 1926 it had 68 miles of track with all necessary buildings and rolling stock.

With lines of transportation advancing in the face of many topographical barriers, development in outlying districts was necessarily slow. Homes were built however, and small businesses opened in these *neighborhoods*, bringing with them a requirement for telephone offices, or for the establishment of central offices such as Sunset, in advance of growth—in which case switchboards were necessarily operated at less than their capacity.

The information outlined above, while not historical in the accepted sense of the word, is indicative of the peculiar problems to be met by public utilities in serving a city with erratic and sometimes abnormally stimulated tendencies toward unexpected development in various localities.

<sup>1</sup>Arnold, Bion J.: *Report on the Improvement and Development of the Transportation Facilities of San Francisco* (1913), pp. 21-28.

<sup>2</sup>*Ibid.*: pp. 15, 17.

<sup>3</sup>*Ibid.*: p. 421.

---

## CHAPTER XVII

### The Exposition

THE idea of a magnificent civic center had for many years intrigued the imagination of people interested in municipal development, although it was not until 1912 that definite steps were taken toward building a city hall.<sup>1</sup> In order to insure a structure of pleasing and practical design, a competition was fostered among architects, with the result that plans originating with a San Francisco firm were accepted. The City Hall, built at a cost of \$3,500,000, was completed in 1915. It is the central figure in a group of magnificent edifices, including the Exposition Auditorium, costing \$2,000,000, built by the Panama-Pacific Exposition Company on land furnished by the city and presented to the people of San Francisco; the Public Library, costing \$1,000,000, built half by the city and half by gift of Andrew Carnegie, having a capacity of 1,000,000 books; and the State of California Building, erected at a cost of over one million dollars on land donated by the city, located to the north of the Civic Center Plaza. Other municipal groups are planned for unoccupied portions of the Center, including a War Memorial to stand on the west side of Van Ness Avenue opposite the City Hall.<sup>2</sup>

While the Civic Center will always remain a monument to the pride of San Franciscans in their city, another project of ephemeral nature was opened in 1915 exemplifying the same virtue and proving the resourcefulness of *the city that knows how*. An exposition celebrating the completion of the Panama Canal had been suggested by R. B. Hale, prominent San Francisco merchant, as far back as April 26, 1904,<sup>3</sup> when a committee met at the offices of the Merchants' Association and drafted a resolution that a "Pacific Ocean Exposition should be held at San Francisco when the Isthmian undertaking was brought to a conclusion."<sup>3</sup> In 1909 a dinner

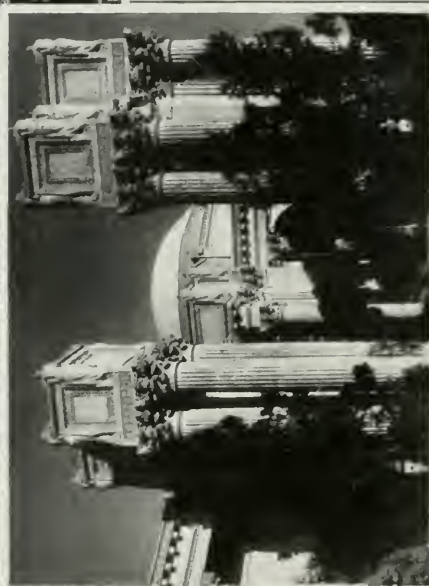
<sup>1</sup>Young, J. P.: *History of San Francisco* (1912), Vol. II, p. 917.

<sup>2</sup>San Francisco *Tribune*: *Fourteen Years of Achievement*, March, 1926, p. 10.

<sup>3</sup>Todd, Frank M.: *The Story of the Exposition* (1921), Vol. I, pp. 38, 47, 63, 71-76, 130, 131, 285, 166.



*Left — Palace  
of Fine Arts*



*The Panama-Pacific  
Exposition, 1915*

was given at the Bohemian Club, four days before the close of the Portola Festival, for the purpose of gaining cooperation in the project.<sup>1</sup> Similar gatherings and mass meetings followed at various times. The exposition company was incorporated in 1910, with an original capitalization of \$5,000,000, which was later increased to \$10,000,000, with a par value of ten dollars a share.<sup>1</sup> Probably one of the most inspiring happenings in the city's history took place one afternoon in 1910, when over four million dollars was raised by popular subscription at a mass meeting in the short space of two hours.<sup>1</sup>

Several sites were considered for the exposition. Among these were the Sutro tract and lands about the vicinity of Lake Merced; Golden Gate Park; old Tanforan race track down the peninsula, and others. Senator Newland wanted to hold it on a second-story level along the waterfront. After long debate, ground was broken by President William H. Taft in the Golden Gate Park stadium on October 14, 1911. The park decision was not final, however, for Harbor View was finally chosen as a suitable location. By arrangement with the United States Government, the exposition company was allowed to use 18 acres in the southern part of the Fort Mason Military Reservation, and 287 acres of Presidio territory. The remainder of the 635 acres used was leased.<sup>1</sup>

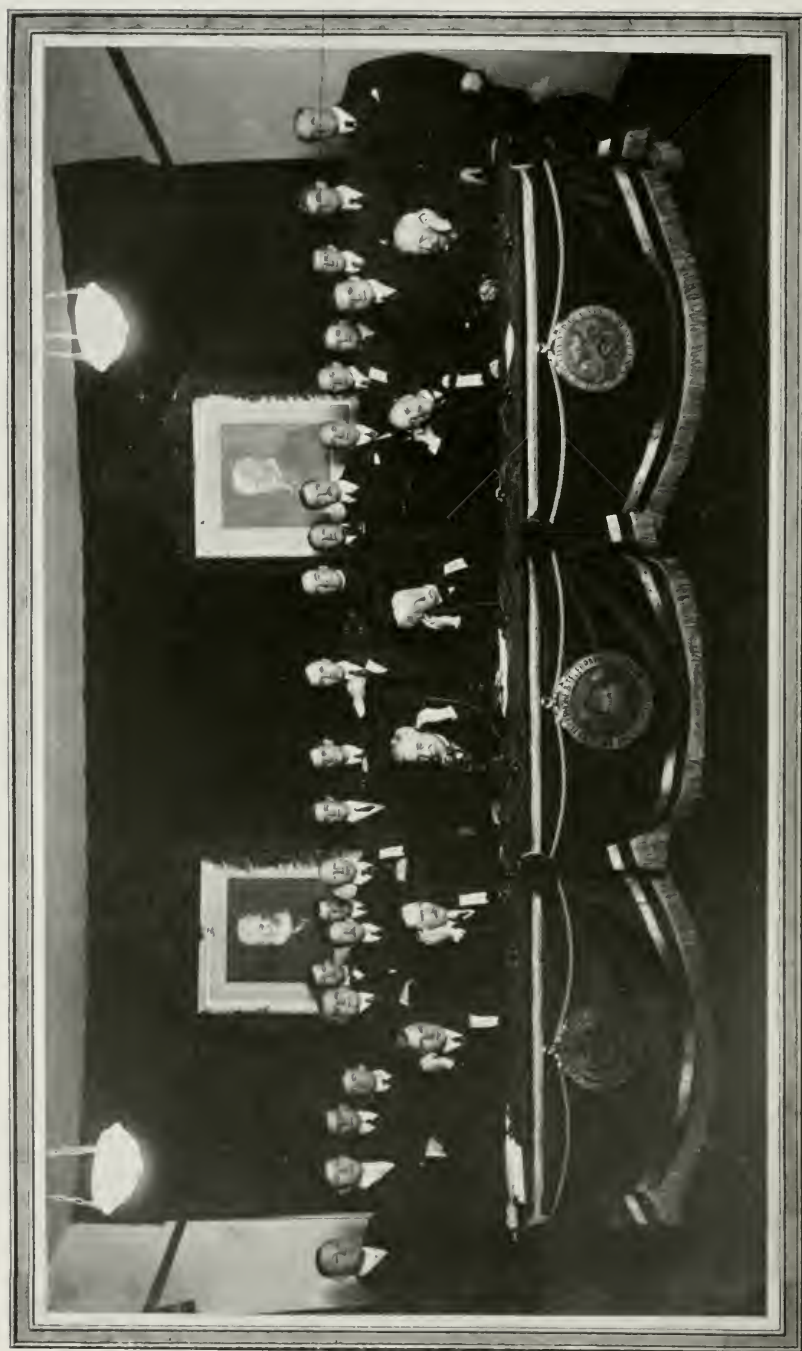
Willis Polk headed exposition architects<sup>1</sup> and by September, 1912, the first sketches of proposed buildings were printed in newspapers. Before the end of the year many foreign countries had signified an intention of erecting buildings and placing exhibits.<sup>2</sup> There were of course many difficulties encountered in constructing the exposition group; land had to be filled in along the bay shore, transportation facilities provided, and provisions made for accommodating vast crowds of visitors. With the beginning of 1915 the *P.P.I.E.*, as it was known, was thrown open to the world.

Volumes have been written about the exposition, which can only be supplemented by a description of the comprehensive telephone facilities provided by The Pacific Telephone and Telegraph Company.

Preparations for the exposition begun tentatively in 1904,<sup>2</sup> brought with them a demand for telephone facilities and, as early as 1912, plans were begun by the telephone company for an ex-

<sup>1</sup>Todd, Frank M.: *The Story of the Exposition* (1921), Vol. I, pp. 38, 47, 63, 71-76, 130, 131, 285, 166.

<sup>2</sup>The Pacific Telephone Magazine, October, 1914.



*Ceremony at San Francisco, opening trans-continental telephone service, January 25, 1915*

change capable of serving the thousands of visitors expected. The system was installed and operated at the expense of, and under the direction of, the exposition company; though actual planning, installing and operating was done by telephone company employees loaned to the exposition for that purpose.

A switchboard of standard design was installed, and to it were connected 1,000 lines reaching to all parts of the grounds. All wires were laid in underground conduit. Thirty-two public pay stations were provided, each consisting of from five to ten booths. An information bureau was organized in connection with telephone service, to render any reasonable service and answer all questions that might be asked. For instance, friends becoming lost from one another had but to telephone their whereabouts to the information bureau, and the bureau would undertake to re-unite them; or a person might give the bureau a twenty-word message to be given to someone who had been instructed to telephone in later for it.<sup>1</sup>

One of the most interesting features of the telephone's part in the exposition was the Pacific Company's exhibit at the *Ball of All Nations* in May, 1914, prior to the opening of the exposition proper. The ball was a costume affair of great magnitude, held in an immense hall nearly three blocks long. As there were no telephone facilities in the entire building, the telephone company was asked to furnish a service which would be both useful and novel. Accordingly a plan was devised whereby telephone connections could be obtained from any part of the hall with any point in the United States—an ambitious undertaking. A network of wires was arranged out of sight under the floor, connected with copper nails set in the floor at close intervals. The use of the latter proved to be very unique and interesting.

On the night of the ball, the wife of a telephone company employee was costumed as a telephone girl and equipped with an operator's headset. Her shoes were fitted with thin copper soles, from which very fine wires were run through her clothing and connected to the head-set. During the ball, the *human telephone* circulated through the crowd. Imagine the amazement of her various dancing partners when, after having laughingly named some person in a distant city with whom they would like to converse, they found themselves talking with the party named, from the center of a crowded ballroom, without any visible connection with the telephone line!

<sup>1</sup> The Pacific Telephone Magazine, October 1914.

The solution proved simple, once it was explained in the papers and magazines. The *human telephone*, by standing upon a pair of copper contacts in the floor, had direct connection with a switchboard operator, whose sole duty it was to listen to everything that was said at the ballroom end of the line. As soon as a name and address was mentioned, the operator rushed through a call for the party named over lines reserved for the purpose, and in an incredibly short time the connection would be completed.

The most remarkable event of the exposition, so far as telephone development was concerned, was the opening on January 25, 1915, of the first transcontinental telephone line, at each end of which appropriate dedication ceremonies were held. The President of the United States talked from Washington. In New York Dr. Alexander Graham Bell, inventor of the telephone, repeated the memorable sentence, "Mr. Watson, come here, I want you!" to that same Thomas Watson in San Francisco. Theodore N. Vail, President of the American Telephone and Telegraph Company, called from Florida.<sup>1</sup>

During the remainder of the exposition, the transcontinental line was in daily operation. A room was equipped with a number of receiving sets so that people could sit and listen to conversations being conducted from coast to coast, as part of the telephone exhibit.<sup>2</sup> After the close of the exposition, demonstrations were continued in a hall at the Bush Street telephone office, in order that San Franciscans might see for themselves the value of transcontinental service.<sup>3</sup>

The year 1915 was also marked by an addition of the largest toll switchboard to San Francisco's telephone equipment. The 'board was opened in May at 333 Grant Avenue.<sup>4</sup> Another notable achievement of the year came when the company laid the first cable containing 900 pairs of wires to be used on the Pacific Coast. It connected Kearny and Garfield central offices.<sup>5</sup>

Thus it can be seen that the telephone was capable of meeting any emergency and could be adapted to a variety of purposes. The thirty-seven years which had passed since the establishment of the first San Francisco exchange had been fruitful ones, and the public now was given a truly universal service.

<sup>1</sup>The Pacific Telephone Magazine, February, 1915.

<sup>2</sup>*Ibid.*: July, 1915.

<sup>3</sup>*Ibid.*: September, 1916.

<sup>4</sup>*Ibid.*: August, 1915.

<sup>5</sup>*Ibid.*: March, 1915.

---

## CHAPTER XVIII

### The War

THE entrance of the United States into the World War, in 1917, brought with it new and unprecedented demands upon the shipping, transportation, and communication facilities of the country. The telephone company's attention was centered upon how it could best aid the nation in the hour of need. While it was essential that telephone communication on the Pacific Coast be maintained at the highest point of efficiency, the company gave many of its best men to the Government and proceeded to train others. The extraordinary requirements of the war-time period on the telephone business brought about a shortage of materials and equipment; for demands from every part of the country and from the military forces seriously taxed the resources of telephone equipment manufactories. The communication problem was national in scope, and The Pacific Telephone and Telegraph Company, as well as other associated companies of the Bell System worked hand in hand with government agencies toward its speedy and satisfactory solution.

A Signal Corps battalion was recruited, before long, from among employees of The Pacific Telephone and Telegraph Company, consisting of two companies of linemen, switchboard men, installers, engineers, wire chiefs, cable splicers, draughtsmen, mechanics, and trained clerks. Three months after the outbreak of the war, the battalion went into training at the Presidio of Monterey, afterwards going to France, where it served until the cessation of hostilities.<sup>1</sup> Many women operators were also granted leaves of absence by the company, so they might respond to the nation's call for the best operators that could be found for overseas duty.<sup>2</sup>

As it was the policy of the company to render every possible assistance to governmental departments in creating and maintaining communication systems, war telephone committees were organized

<sup>1</sup>The Pacific Telephone Magazine, April, 1917; July, 1917.

<sup>2</sup>The Pacific Telephone Magazine Files, 1917.



---

## CHAPTER XIX

# Telephone Development After the War

WHEN the country entered upon a period of re-adjustment after the World War, the immediate effect upon San Francisco was a stimulation of residential and business building activity. The population of the city at the end of 1925 was approximately 695,000, as compared with 506,000 in 1920.<sup>1</sup> The value of building permits issued annually increased from \$22,000,000 in 1921 to over fifty-seven million in 1925, and all indications pointed to further increases in following years.

This steady advance in population and building activity brought greatly increased demands for telephone service to meet immediate and future needs. The telephone company met the problem by planning a construction program for 1923, 1924 and 1925, involving some \$17,000,000 to be spent in San Francisco alone for new equipment and buildings. Appropriations were made for the purchase of building sites, the erection of new exchanges and office structures, the installation of the most up-to-date equipment, and the placing of additional local and long distance cable facilities. Studies were made, plans drawn and forces increased to further the success of the undertaking.

The first central office to be completed under this program was Graystone, opened in May, 1924. Located at the corner of Bush and Larkin streets, in the heart of the apartment house district, this building was designed to harmonize with its surroundings. In 1925 this central office required the service of 58 operators, and cared for calls to and from 4,828 lines. The Graystone building has the appearance of an apartment house, and there is nothing about it to indicate the hum of activity within its walls.

A new business office and exchange building was opened in March, 1925, on the site of the old California Theater and Hotel, at 430-444 Bush Street. This location was made famous by Edwin

<sup>1</sup>United States Census Reports.



*Group of buildings erected since 1912*

- |                                 |                              |
|---------------------------------|------------------------------|
| 1 Graystone, 1145 Larkin Street | 4 Davenport, 444 Bush Street |
| 2 Pacific, 450-5th Avenue       | 5 Sunset, 1545-19th Avenue   |
| 3 140 New Montgomery Street     | 6 Randolph, 99 Russia Avenue |
| 7 Evergreen, 389-9th Avenue     |                              |

Booth, Kate Castleton, John McCullough, Lawrence Barrett, and other immortal stage people of the seventies who played in the then magnificent theater, built with treasure from Nevada silver mines by W. C. Ralston, who also founded the Bank of California and established the Palace Hotel. The California stood until 1906, when it was completely demolished.

The new Bush Street telephone building, a six-story structure of steel, concrete, brick and terra cotta, was modeled after the Italian Renaissance style of architecture, and was massively built to sustain the weight of six additional stories to be added when conditions demand. On its first floor is located what was, in 1926, the largest single office room on the Pacific Coast—173 feet long and 137 feet wide. It was to this location that the company business office was moved from 333 Grant Avenue on March 2, 1925. Owing to the size of the new business office room and the number of people working in it, special construction was necessary to insure quietness. The entire floor was covered with patterned rubber tile, and the ceiling panelled with muslin, felt and enamelled cloth to absorb and deaden all noise.

The next item to be checked off the list of building projects in the telephone company program was Evergreen central office, at Ninth Avenue and Geary Street, opened in October, 1925<sup>1</sup>. Evergreen was built to meet the needs of the Richmond District, a rapidly growing residential area in the northwest part of the city, and to it were transferred a part of those lines in its territory formerly served by the Pacific-Bayview office, in Fifth Avenue.

Evergreen was soon followed into service by Davenport central office, also opened in October, 1925. It is located on the sixth floor of the 430-444 Bush Street building, and serves the downtown business district. When opened but 3,000 stations were connected to its switchboard, but provisions were made whereby other units may be added from time to time, so that eventually it may become the largest central office on the Pacific Coast. In the same room with the Davenport 'board is the information desk where in 1926, 32 girls answered queries and fulfilled other requirements of their positions.

Extensive and widespread building operations going forward in San Francisco created a demand for new cable facilities that could not be readily met by the telephone company because of a shortage of telephone materials throughout the country. At one time, in

<sup>1</sup>The Pacific Telephone Magazine, November, 1925.

1923, the company had on file two thousand orders for telephone service, each involving a cable pair of wires, that could not be filled. The completion of new buildings and the installation of additional equipment brought about a reduction to a nominal number of un-completed orders at any one time.

Similar increases in population and building activities in East Bay cities during this period made a new submarine cable to Oakland necessary in 1924. The cable laid contained 306 pairs of wires and was the largest ever made up to that time.

The centrifugal movement of population mentioned repeatedly in this review, was responsible for the creation of an extensive residential district in the southern part of the city, the telephone needs of which were met by opening Randolph central office in 1916, in a new company building at London Street and Russia Avenue. Ten years later continued development made a new central office necessary and Delaware was cut into service in February, 1926. Its switch-board was installed in the building containing that of Randolph.<sup>1</sup>

In a survey of new buildings completed, the remodeling of old structures and installation of new equipment should not be overlooked. Building and equipment additions were made to Sunset office in 1925; and on two successive occasions to Mission office, one in 1924 and another in 1925. In August, 1925, extensive alterations were made in the company's Grant Avenue building to provide for expansion of toll and telegraph facilities. A telephotograph laboratory, demonstration room and office were also equipped in Grant Avenue quarters, at this time.

As a climax to three years of noteworthy building operations, 140 New Montgomery, a 26-story structure, was formally opened at the last day of 1925. This skyscraper was built for the purpose of bringing together under one roof all administrative and executive offices of the company which, at the time the structure was planned, were scattered about the city in rented quarters in at least twelve different buildings. The New Montgomery Street structure contains some five hundred rooms, all of which are occupied by company offices. Although originally *L*-shaped, provisions have been made so that another wing may be added at some future time, thereby making its ground plan into a *U*. Seventeen hundred employees were housed by 140 New Montgomery, in 1926, but a maximum of two thousand may be accommodated.

<sup>1</sup>The Pacific Telephone Magazine, March, 1926.

During these years of intensive building by the telephone company notable advances were made in telephony in this country which benefited the local organization. The transcontinental line, one end of which terminated in San Francisco, was extended to Havana, Cuba, and was opened in March, 1924, with appropriate ceremonies, in which radio broadcasting stations co-operated, making it possible for an audience of millions of people all over the United States to listen to the program. With this extension the transcontinental line reached a length of 5,141 miles, varying in altitude at different points from a mile above sea level near Denver, to a mile below sea level between Key West and Havana.<sup>1</sup>

Telephotography also came into prominence during this period. While experimental transmission of pictures had been going on for some time, the first commercial use of the new invention was made in connection with the inauguration of President Coolidge in 1925. Pictures were taken of the ceremony at Washington; the films were rushed to a dark room a few blocks from the Capitol; developed, and while still wet the negatives were handed to telephotograph operators. A tiny beam of light was turned on the film and moved slowly across it from end to end. Seven minutes after the film was developed, pictures were in the hands of newspaper representatives in New York, Chicago and San Francisco, and before the ceremony in Washington was over, cuts of it were printed in newspapers of these cities.<sup>2</sup>

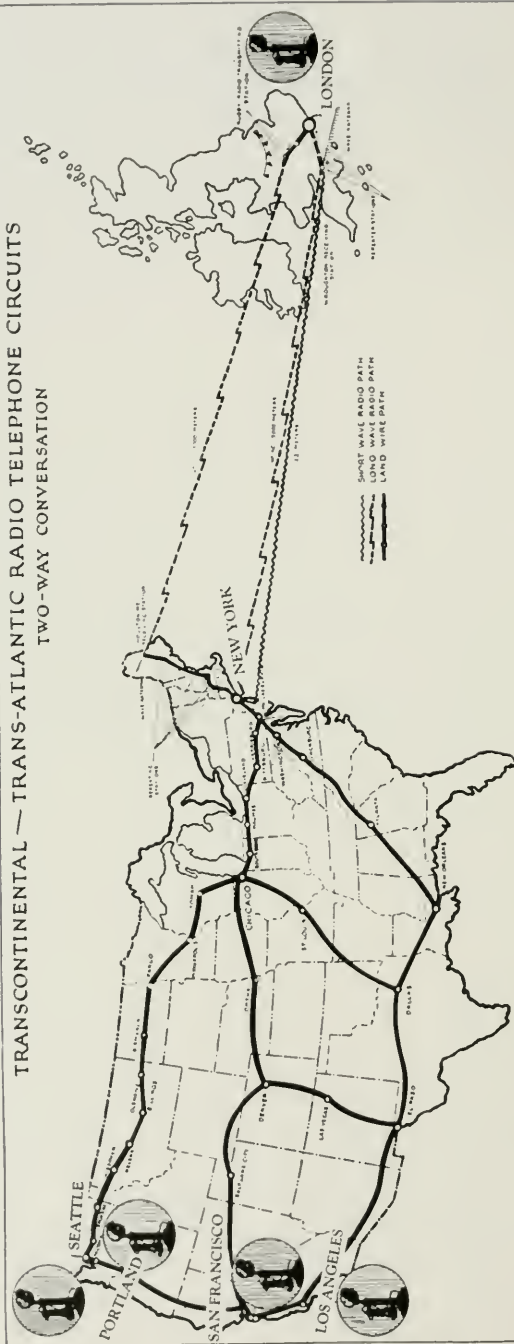
The Pacific Telephone and Telegraph Company had previously been taking part in telephotograph experiments, but no equipment for commercial application of the invention had been provided prior to the inaugural ceremony of 1925. That event marked the opening of a fully equipped telephotograph room at the 333 Grant Avenue building, which has been in use ever since.

Twelve years after the first transcontinental telephone circuit was opened, the Pacific Coast was given in 1927, direct radio telephone communication with England, Scotland and Wales. This most spectacular feat in the history of telephony was made possible only after a long period of scientific research by engineers and other technicians of the American Telephone and Telegraph Company. The first great step was the inauguration of two-way conversation between the metropolitan areas of New York City and London, on

<sup>1</sup>The Pacific Telephone Magazine, March, 1924.

<sup>2</sup>*Ibid.*: April, 1925.

# TRANSCONTINENTAL — TRANS-ATLANTIC RADIO TELEPHONE CIRCUITS TWO-WAY CONVERSATION



*Telephone service between Pacific Coast points and London was inaugurated on February 26, 1927*

January 7, 1927. Then, in rapidly lengthening strides, trans-Atlantic radio telephone service swept across the continent until, on February 26, 1927, the first telephone conversation between a Pacific Coast point and London took place from San Francisco when President H. D. Pillsbury, of The Pacific Telephone and Telegraph Company, talked with Colonel H. E. Shreeve, London representative of the American Telephone and Telegraph Company. The new facilities were then thrown open to public use in California, Nevada, Washington, Oregon and Arizona, on the same day.

The initial complete radio telephone circuit from San Francisco to London consisted of a maximum of about 5,500 miles of wire line and 6,300 miles of ether path. Calls originating at Pacific Coast points were handled over the regular transcontinental circuits to the long distance office of the American Telephone and Telegraph Company in New York City, where equipment was provided to separate the voice transmitted toward London from the voice answering from the English metropolis. The eastbound voice was transmitted by a southern route from the Rocky Point, Long Island, radio station to the receiving station at Wroughton, England, and thence by wire lines to the British Post Office long distance office, in London, where it passed through combining apparatus, and where the various mechanical details of completing the call were made.

The westbound voice was transmitted over a northern route from the London long distance office, where it was segregated from the eastbound voice and thence by way of the radio station at Rugby, England, to the receiving station at Houlton, Maine. From there the transmitted voice traveled by wire to the New York City long distance office combining apparatus and so on, by wire, to its destination.

An alternate eastbound route using a short wave length existed between the radio transmitting station at Deal Beach, New Jersey, and Wroughton, England. This course was used when a short wave length was required by unusual atmospheric conditions. The long wave length of the regular northern and southern passages was, in a majority of cases, found to be most satisfactory.

The fifty-first chapter of the telephone's world history, and the forty-ninth of its service to San Francisco, is an inspiring one. When

<sup>1</sup>The Pacific Telephone Magazine, March, 1924.

<sup>2</sup>*Ibid.*: April, 1925.

the first exchange was established in Sansome Street in 1878, there were but 178 telephone subscribers in a city of 217,000 inhabitants; while on January 1, 1927, 229,937 telephones in a city of 721,000 were being served. The Pacific Telephone and Telegraph Company in 1927 employed 6,700 men and women, and occupied 15 company owned buildings in San Francisco. Work of expanding the system is constantly going forward, and studies of all phases of the telephone problem are made for the betterment of the service. Forecasts of future demands for telephone facilities in San Francisco are made at regular intervals, and upon this information all plans for the future are based, in extending the telephone system to meet development requirements—thus insuring the continuance of an achievement worthy of the traditions of the city, that have been so briefly touched upon in this review.



*Operating room, modern telephone exchange, San Francisco*

---

## CHAPTER XX

### Conclusion

IT is to the natural resources of California and their development, and to her own advantageous location that San Francisco owes the progress that has been hers since the Franciscan mission was established. And it is to San Francisco's growth that the businesses, industries and utilities owe their success; although one might reverse the order of the statements and still have the truth.

After passing through periods when money was plentiful as a result of rich findings in mineral fields, through times of depression, and through eras of phenomenal activities in all lines of endeavor San Francisco finds that her principal wealth is derived from agricultural products and raw materials, originating in Central California,<sup>1</sup> and distributed through her port. This carries the mind back to Spanish days, when the town's main articles of export were hides, tallow, salt-meat and food products.<sup>2</sup> California has every resource for becoming the world's greatest source of supply for certain commodities and San Francisco, holding the key position to a vast inland empire, is the scene from which operations in far-flung fields are directed. Electrical communication has made close co-ordination of industries possible, and the telephone's part in this task has been probably greater than that of any other agency.

Paralleling telephone achievements through the years are those of the city and its industries. In the manufacturing industry, for instance, products of a total value of \$529,000,000 were turned out in 1925,<sup>3</sup> as against \$133,000,000 in 1909.<sup>3</sup> It would be incorrect to fix San Francisco's industrial rank on the Pacific Coast by reliance upon political boundaries for, as in agriculture and mining, the principal manufactories are controlled from this city, through the media of the telephone and telegraph lines.

We no longer think of San Francisco as being confined primarily to its site on the Peninsula, but as a great area devoted to diverse

<sup>1</sup>Kunze, C. E.: *The Wealth of San Francisco*, San Francisco Business, April 14, 1926, p. 13.

<sup>2</sup>*Ibid.*: p. 13.

<sup>3</sup>*Ibid.*: p. 15.

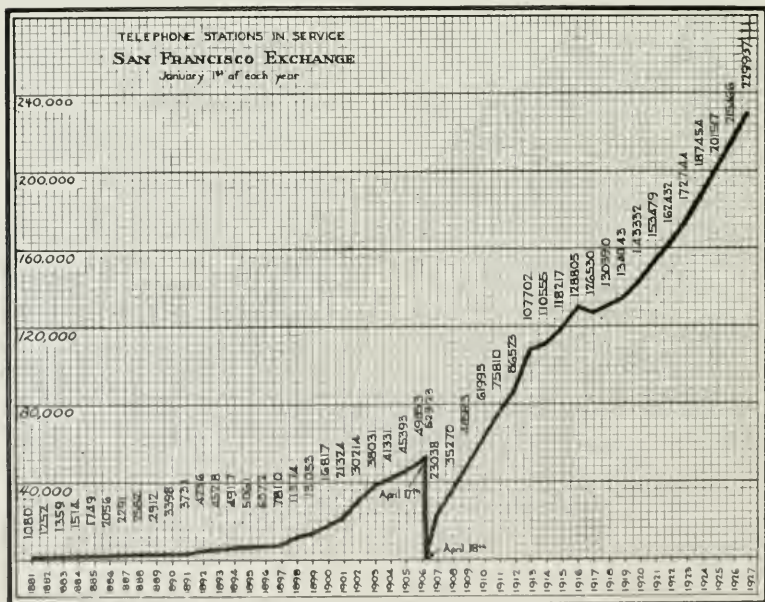
pursuits, operated as units through the convenience of electrical communication.

Within the actual political boundaries of San Francisco there has been within the past few years intensive development in the downtown districts and widespread building in new residential sections, made possible by improved transportation facilities. The erection of homes is probably due to the prosperity of the inhabitants, for the per capita wealth of the city in 1925 was \$3,807. Certainly the magnificent steps taken by the city in its many public works reflect a general well-being.

Insurance of a perpetual water supply is being provided by the people of San Francisco in their Hetch Hetchy project in the High Sierra. The undertaking, in progress for a number of years, was on the way to completion in 1926, and is said to compare favorably in size with the largest in the country, namely the sources of water supply for New York City, Boston and Portland.<sup>1</sup>

Municipal records show that more than twenty million dollars have been spent in recent years in street reconstruction and new pavements. A system of boulevards has been evolved, 16 of which have already been completed.<sup>1</sup> These new inter-city and intra-city

<sup>1</sup>San Francisco Tribune Supplement: *Fourteen Years of Achievement*, March, 1926, p. 10.

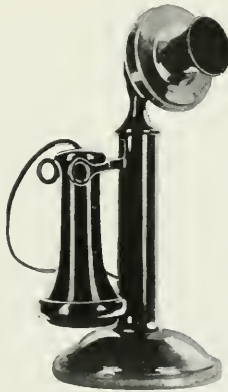


highways have pushed back the residential district frontier, until the telephone has come to be indispensable as a means of connecting homes with a rather distant downtown area. To provide needed facilities, extensive cable construction projects are being constantly inaugurated by the telephone company.

Schools, playgrounds, tunnels for streets and street railways, an extensive sewer system, parks, public buildings and other undertakings illustrate the progress made by the city government and they, in turn, indicate success in the financial, industrial and commercial city which made them possible.

Unlike the first settlers of the original town of San Francisco, we can see in the substantial progress of today the steady growth of the city to one of the largest in the world. In this evolution, communication agencies are now, and always will be indispensable.

*T H E   E N D*



## BIBLIOGRAPHY

- Arnold, Bion J.: *Report on the Improvement and Development of the Transportation Facilities of San Francisco*. One volume. Submitted to the Mayor and Board of Supervisors, San Francisco, March, 1913.
- Daniells, T. G.: *The Resources of California*. One volume. Published by the California Alaska-Yukon Exposition Commission, State Printing Office, Sacramento, 1909.
- Eldredge, Zoeth Skinner: *Beginnings of San Francisco; from the Expedition of Anza, 1774, to the City Charter of April 15, 1850*. Two volumes. Z. S. Eldredge, San Francisco, 1912.
- Eldredge, Zoeth Skinner: *History of California*. Five volumes. The Century History Company, New York, 1915.
- Farnham, T. J.: *Life, Adventures and Travel in California; to which are added the Conquest of California, Travels in Oregon and the History of the Gold Regions*. Nafis and Cornish, St. Louis, Mo., 1849.
- Folger, W. A., Editor: *The Pacific Telephone Magazine*. Files of the Magazine, July 1, 1907 to July 1, 1926.
- Geographical Society of the Pacific: *Transactions and Proceedings*. Series 2, volume IV, San Francisco, 1907.
- Genthe, Arnold; Irwin, Will: *Pictures of Old Chinatown*. One volume. Moffat, Yard and Company, New York, 1908.
- Hittell, T. H.: *History of California*. Four Volumes. Vols. 1-2, Occidental Publishing Company; Vols. 3-4, N. J. Stone and Company, San Francisco, 1885-1897.
- Hittell, John Shertzer. *History of San Francisco and, Incidentally, of the State of California*. One volume. A. L. Bancroft and Company, San Francisco, 1878.
- Irwin, Will: *The City That Was*. New York Sun, April 21, 1906. *The City That Was. A Requiem of Old San Francisco*. One volume. Reprinted by B. W. Huebsch, New York, 1907.
- Irwin, Will; Genthe, Arnold: *Pictures of Old Chinatown*. One volume. Moffat, Yard and Company, New York, 1908.
- Keeler, Charles: *San Francisco and Thereabout*. One volume. The California Promotion Committee, San Francisco, 1902.
- Kunze, C. E.: *Older Than the State*. Series appearing in San Francisco Business, Chamber of Commerce periodical, September 5, 1925; September 9, 1925.
- Kunze, C. E.: *The Wealth of San Francisco*. Article appearing in San Francisco Business, Chamber of Commerce publication, April 14, 1926.
- Marye, George Thomas, Jr.: *From '49 to '83 in California and Nevada*. One volume. A. M. Robertson, San Francisco, 1923.
- Moses, Bernard: *The Establishment of Municipal Government in San Francisco*. Written by Bernard Moses, Professor of History and Politics, University of California, for The Johns Hopkins University Studies in Historical and Political Science. Booklet. Publication agency of Johns Hopkins University, Baltimore, February and March, 1889.
- Murdock, C. A.: *A Backward Glance at Eighty*. One volume. Paul Elder and Company, San Francisco, 1921.
- Payne and Dewey vs. Treadwell: *Calif. Rep.* 16,230

## BIBLIOGRAPHY (*Cont'd*)

- Paloú, Rev. Padre Fr. Francisco: "*Relacion Historica de la Vida y Apostolicas Tareas del Venerable Padre Fray Junípero Serra,*" y de las Misiones que fondó en la California Septentrional . . . Escrita Por el R. P. L. Fr. Francisco Paloú. . . . Impresa en México, en la Imprenta de Don Filipo de Zúñiga y Ontiveros, calle del Espíritu Santo, Año de 1787. (Eight Volumes.) Reference taken from Geographical Society of Pacific, Transactions and Proceedings; Series 2. Vol. IV, p. 5, 1905-1907.
- Soulé, Frank: *Annals of San Francisco*. One volume. D. Appleton and Company, New York, 1854.
- Statutes of California (1869-1870).
- Taylor, Bayard: *Eldorado, or Adventures in the Path of Empire*. Two volumes. George P. Putnam, New York; Richard Bentley, London, 1850.
- Turrill, Charles B.: *California Notes*. Volume I. One volume. Edward Bosqui and Company, 1876.
- Todd, Frank Morton: *The Story of the Exposition*. Five volumes. Published for the Panama-Pacific International Exposition Company, G. P. Putnam's Sons, The Knickerbocker Press, New York, London, 1921.
- Todd, F. M.: *San Francisco Chamber of Commerce Handbook*, 1914.
- United States Census Reports.
- Young, John Philip: *San Francisco, A History of the Pacific Coast Metropolis*. Two volumes. The S. J. Clarke Publishing Company, Chicago, 1912.

## NEWSPAPERS

- Tribune*, San Francisco, Supplement: *Fourteen Years of Achievement* (Article) March, 1926.









